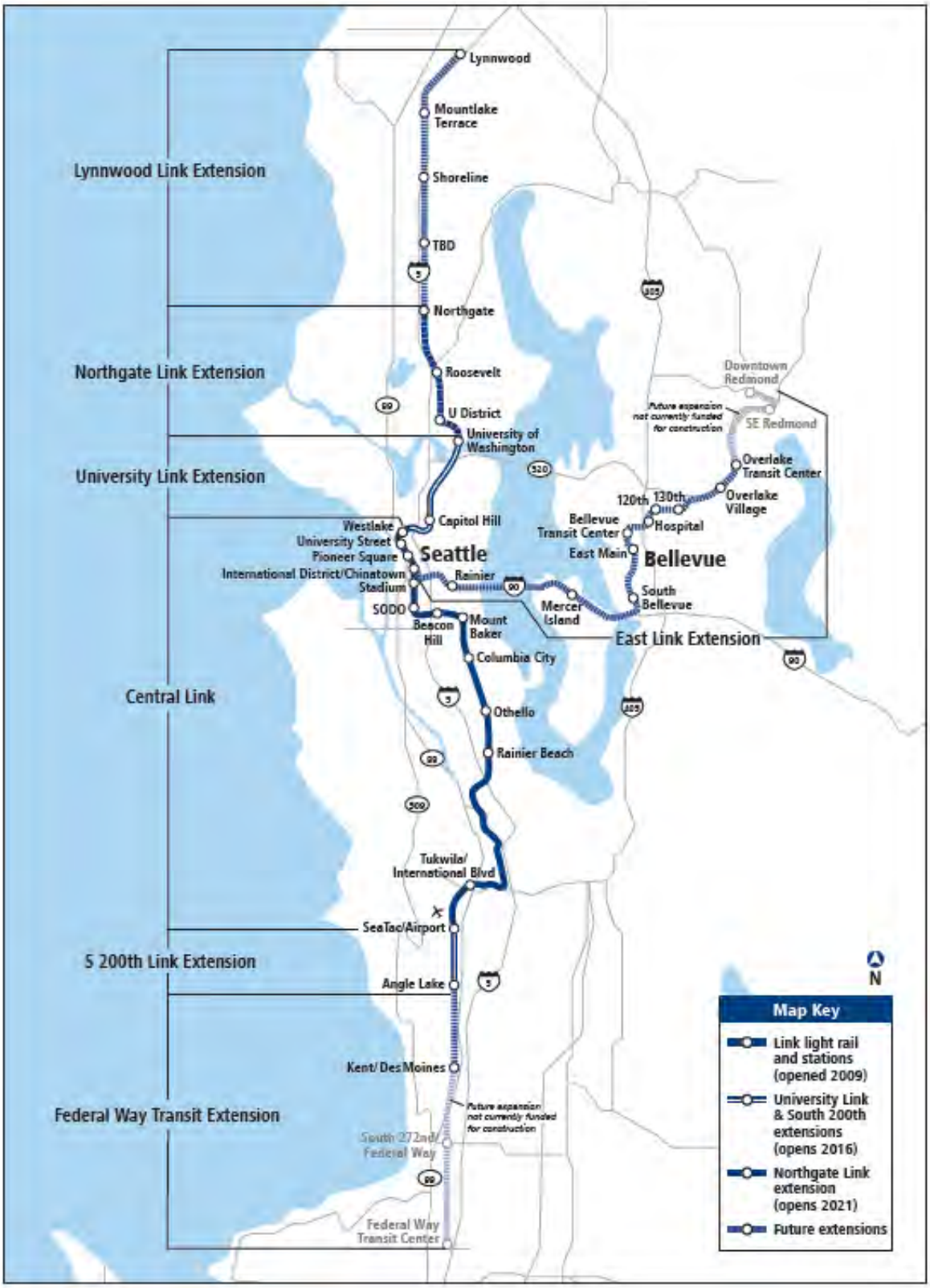
Progress Report
Link Light Rail Program

Montlake Triangle Pedestrian Bridge Project is ongoing (with Husky Stadium construction in the background).

December 2012

Prepared by Project Control
Design, Engineering & Construction Management



Map of Sound Transit's current and future light rail projects.

Projects

University Link Extension: The University Link Extension work program with $1.76 billion capital budget was approved by the Board in July 2008. The 3.15-mile light rail segment is located entirely underground with tunnels traveling from Pine Street, under the I-5 freeway to an underground station at Capitol Hill, continuing north beneath SR 520 and the Lake Washington Ship Canal to an underground station on the University of Washington campus, near Husky Stadium.

Northgate Link Extension: The University of Washington Station (UWS) to Northgate project is a 4.3-mile extension of light rail from the UWS north under campus via twin-bored tunnels to an underground station at NE 45th Street continuing to an underground station at NE 65th Street and via tunnel, retained cut and elevated sections to Northgate. The project is in Final Design; NTP for Early Work at station locations was given in August 2012.

Lynnwood Link Extension: This project entails the planning, design and construction of an extension of Northgate Link from Northgate to Lynnwood in Snohomish County with additional service in the cities of Shoreline and Mountlake Terrace. The development of the draft environmental impact statement (DEIS) and conceptual engineering of the DEIS alternatives started in January 2012.

East Link Extension: East Link Extension expands light rail to East King County via I-90 from Downtown Seattle to the Overlake Transit Center area of Redmond, with stations serving Rainier Avenue/I-90, Mercer Island, South Bellevue, Downtown Bellevue, Overlake Hospital, the Bel-Red corridor, Overlake Village and the Overlake Transit Center. Revenue service to the Overlake Transit Center is forecast for early 2023 with a tunnel route in Downtown Bellevue.

Initial Segment: Completed 13.9-mile light rail line between downtown Seattle and South 154th Street in the City of Tukwila. Revenue service began on July 18, 2009. The Initial Segment represents the Minimum Operable Segment (MOS) for the executed Full Funding Grant Agreement (FFGA).

Airport Link: Completed 1.7-mile extension of the Initial Segment to Sea-Tac International Airport. Revenue service began on December 19, 2009.

South 200th Link Extension: S. 200th Link Extension consists of a 1.6-mile extension of the light rail from the SeaTac/Airport Station to an elevated station at South 200th Street. Preliminary Engineering and the Environmental Impact Statement have been completed and a Record of Decision has been issued for this segment. The Project is being developed through a design/build (D/B) delivery strategy. Procurement for the D/B contractor was initiated in October 2011.

Federal Way Transit Extension: Sound Transit has initiated studies to identify and evaluate routing and station location requirements to inform conceptual engineering and environmental review for the extension of light rail to the Federal Way Transit Center; with preliminary engineering to be completed on the segment extending from S. 200th St. to Kent/Des Moines in the vicinity of Highline Community College. Planning and preliminary engineering for this extension is scheduled to be completed by late 2015; the proposed budget for this effort is $41.8 million.

South Corridor Alternatives Planning: Sound Transit has begun studying high capacity transit alternatives between downtown Tacoma and the Federal Way Transit Center. The analysis will include a review of modifications/ additions to the existing transit infrastructure and service network in South King and Pierce Counties. The goal of this effort is to identify affordable high capacity transit improvement projects that can be delivered to the area within Sound Transit's funding constraints. Planning studies are expected to be completed at the end of 2013; the proposed budget for planning efforts is $4.1 million.

Tacoma Link Expansion: In partnership with the City of Tacoma and Pierce Transit, Sound Transit is studying the potential of expanding Tacoma Link in the context of the City and Pierce Transit service and capital plans.

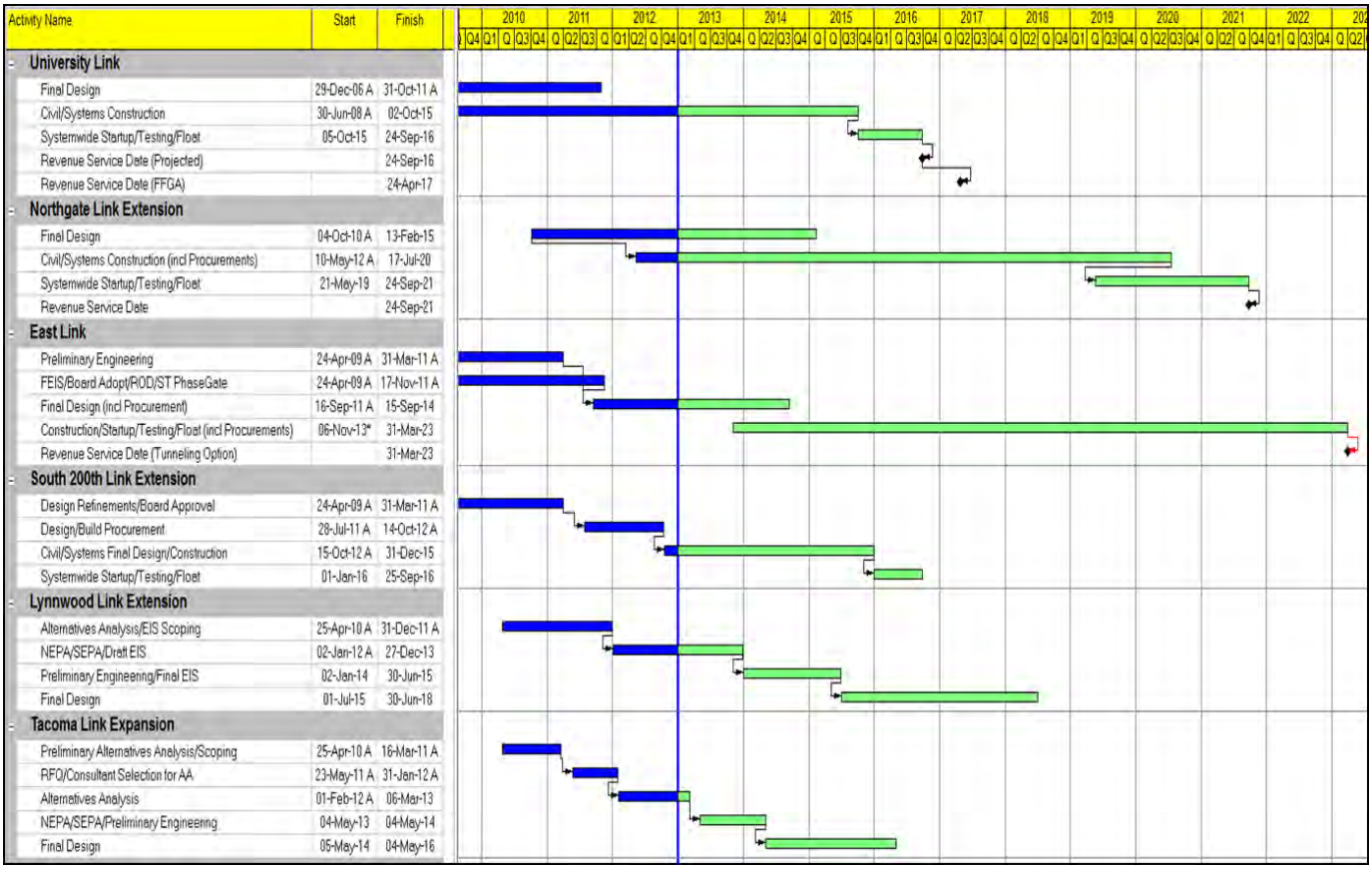
Link Operations and Maintenance Satellite Facility: Sound Transit is reviewing and evaluating current and future light rail storage and maintenance requirements to support the development, design, and construction of a future light rail operations and maintenance facility for proposed system expansion.

Active Program Budget

roject	Adopted Budget	Committed to Date	Incurred to Date
University Link[3]	$1,947.7	$1,554.3	$1,075.0
Northgate Link Extension[2]	$2,131.4	$262.0	$138.2
Lynnwood Link Extension[1]	$57.1	$21.4	$14.5
East Link[2]	$756.8	$219.6	$90.7
Initial Segment[4,5]	$2,433.7	$2,323.7	$2,296.3
Airport Link[4,5]	$263.1	$263.3	$261.2
S. 200th Link Extension[2]	$383.2	$229.2	$37.3
Federal Way Transit Extension[1,5]	$41.8	$3.6	$1.7
South Corridor Alternative[1,5]	$4.1	$0.1	$0.0
Tacoma Link Expansion [1,5]	$5.0	$1.1	$0.6
Link Operations & Maintenance Satellite Facility	$9.4	$2.5	$1.4
Total	**$8,033.3**	**$4,880.8**	**$3,916.9**

Table figures in millions (1) Preliminary Engineering Phase; (2) Final Design Phase ; (3) Construction Phase; (4) In Service , (5) Updated Quarterly.

Program Schedule



No changes this period.

Project Summary

Limits: 3.15-mile extension of the Initial Segment light rail transit (LRT) system from the Pine Street Stub Tunnel (PSST) in downtown Seattle to University of Washington (UW) campus near Husky Stadium.

Tunnels: Two twin bored tunnels. Two contract segments: U220 starts at Husky Stadium, continues beneath SR 520 and the Lake Washington Ship Canal and south to the Capitol Hill underground station. U230 commences at Capitol Hill Station and proceeds south under the I-5 freeway to the PSST.

Stations: 2 underground center platform stations – Capitol Hill (U240) and University of Washington (U250). U240 is approximately 65' underground with three station entrances. U250 is about 100' below ground, with three station entrances and connections to the UW campus by a pedestrian bridge.

System: 27 LRV; direct fixation tracks, signals, traction electrification, and SCADA communications

Budget: $1.948 billion including finance cost (capital subtotal of $1.756 billion)

Schedule: Project completion in September 2016

Key Project Issues

- U220 Contractor successfully mitigated CP #17 ground water issue to allow construction of the cross passage. CP #17 was successfully constructed. The dewatering well was decommissioned. CP #17 invert propping to be demolished and removed next period. (As of this writing, CP #17 ground water issue returned, water seepage and sand inflow increased from the in– tunnel wells. Contractor plans to grout the liner penetration area to eliminate the flow. STCM is monitoring this issue.)
- At U250 University of Washington Station: UW's Husky Stadium renovation and the Montlake Triangle projects add logistic complexities in the geographical vicinity of the project. Coordination meetings between contractors are taking place. Construction of the pedestrian bridge over the busy Montlake Boulevard is continuously monitored.
- U830 Systems access will be a continuous issue as there are no tunnel portals in the U-Link project. All access will be coordinated via hoisting through the station boxes; hence, coordination with U250 (UWS) and U240 (CHS) are critical. On the southern end, the access through the Pine Street Stub Tunnel is limited to non-revenue hours and will require close coordination with ST Operations. All access coordination is crucial and will be closely monitored.

Project Cost Summary

The U-Link project cost is summarized in two types of cost classifications. In the first table, cost is classified in accordance with Sound Transit's Work Breakdown Structure (WBS); and in the second table, cost is summarized in accordance to the FTA's Standard Cost Categories (SCC) format. (Both tables' figures in millions.)

WBS Phase Elements	Baseline Budget	Current Adopted Budget	Commitment to Date*	Incurred to Date	Est. Final Cost (EFC)	Adopted Budget vs. EFC
ADMINISTRATION	115.2	115.2	39.5	43.4	115.2	0.0
PRELIMINARY ENGINEERING	24.4	24.3	24.3	24.3	24.3	0.0
FINAL DESIGN	77.9	87.6	83.9	73.1	87.6	0.0
CONSTRUCTION SERVICES	68.5	95.8	75.4	49.2	95.7	0.1
3rd PARTY AGREEMENTS	18.6	18.6	11.4	10.4	18.6	0.0
CONSTRUCTION	1,180.0	1,158.2	902.7	581.3	1,075.7	82.5
VEHICLES	103.9	103.9	99.2	98.8	103.9	0.0
ROW	167.3	152.3	126.3	125.5	127.7	24.6
Capital Total	**1,756.0**	**1,756.0**	**1,362.6**	**1,006.0**	**1,648.7**	**107.3**
FINANCE COST	191.7	191.7	191.7	68.9	191.7	0.0
Project Total	**1,947.7**	**1,947.7**	**1,554.3**	**1,075.0**	**1,840.5**	**107.3**

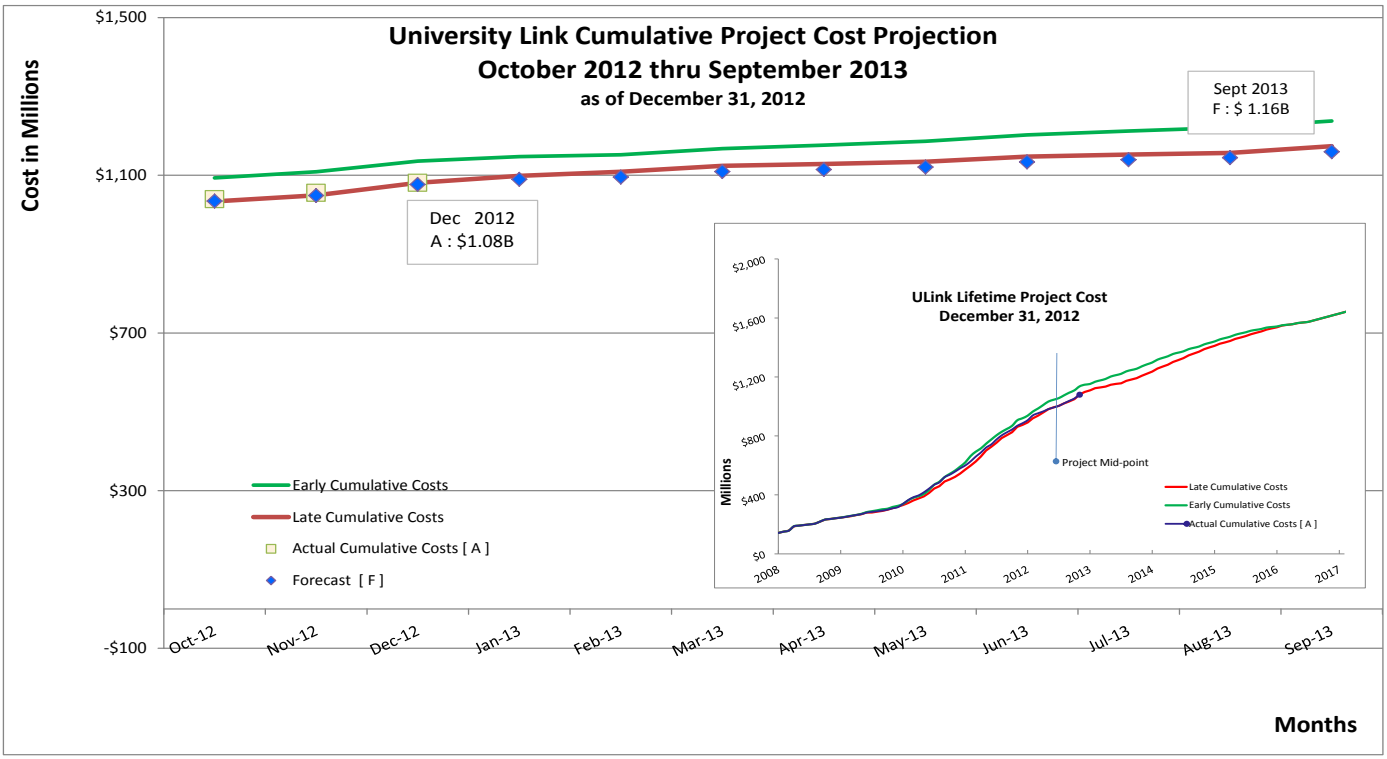
(*)Totals may not equal column sums due to rounding of line entries.

The December 2012 projected Estimated Final Cost (EFC) including Finance Cost continues to remain at $1.84B. This period, approximately $20.2M was incurred, increasing the project incurred to date amount to approximately $1B (Finance Cost excluded). Direct construction cost accounted for over three quarters of the cost incurred in December at $15.6M. The direct construction EFC continues to trend at $1.08B. The Capitol Hill Station (U240) contractor was given notice to proceed and the Systems (U830) Contractor began mobilization in December. The total incurred to date for the Construction Phase is approximately $581M with a current commitments of over $902M. Cost for LRV is at $98.6M with a commitment of approximately $99.2M due to an adjustment in sales tax and a minor change as close-out commences.

Construction EFC under the SCC format for this period remains stable and relatively unchanged at about $1.02B. Construction phase expenditures in December is at $15.5M, with over 87% of cost attributed to guideway work and station work taking up most of the balance. U-Link construction continues to transition from the tunneling scope to station construction. U220 and U230 work are largely associated with cross passages and walkway scope which is winding down. U250 station scope including the pedestrian bridge across Montlake Boulevard is progressing.

Project Elements by SCC	Baseline Budget	Current Adopted Budget	Commitment to Date*	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
10 Guideway & Track Elements	626.8	555.4	416.6	365.5	487.7	67.7
20 Stations	366.3	367.0	328.7	160.3	363.4	3.7
30 Support Facilities: Yards, Shops	7.0	7.1	7.0	7.0	7.1	0.0
40 Sitework & Special Conditions	59.0	72.1	56.7	42.7	59.9	12.2
50 Systems	69.6	102.7	89.1	4.6	106.3	-3.6
Construction Subtotal (SCC 10-50)	**1,128.8**	**1,104.2**	**898.1**	**580.0**	**1,024.3**	**80.0**
60 Row, Land, Existing Improvements	167.3	127.7	126.3	125.5	127.7	0.0
70 Vehicles	99.8	99.8	99.2	98.8	99.8	0.0
80 Professional Services	306.5	342.2	239.0	201.6	344.1	-1.9
90 Unallocated Contingency	53.5	82.1	0.0	0.0	52.9	29.2
Capital Cost Total (SCC 10-90)	**1,756.0**	**1,756.0**	**1,362.6**	**1,006.0**	**1,648.7**	**107.3**
100 Finance Cost	191.7	191.7	191.7	68.9	191.7	0.0
Project Total	**1,947.7**	**1,947.7**	**1,554.3**	**1,075.0**	**1,840.5**	**107.3**

(*)Totals may not equal column sums due to rounding of line entries.



Incurred to date for Construction under the SCC at approximately $580M. Total capital cost incurred to date including non-construction cost (SCC 60 thru 90) (excluding Finance Cost) is now over $1B.

Total cost incurred at the end of 2012 including Finance Cost is approximately $1.08B. The annual finance cost incurred for 2013 is $22.3M and the total lifetime finance cost incurred is a little over $74M. The next finance cost up date will be for the first quarter ending in March 2013. Overall, University Link cost to date is projected to be $1.16B by September 2013.

The EFC for project Finance Cost continues to be projected at $191.7 million. This cost represents booked financing cost and is generated based on allocation of appropriate level of financing cost to each capital project at Sound Transit. Despite an earlier than anticipated release of $44 million of the FFGA funds due to the American Recovery Reinvestment Act that was used to pay down finance charges, it is premature to project any savings at this time.

Overall Construction Progress Summary

12/31/2012

	0% – 100%	
Early Works		
U210 Early Utility Work		100%
U211 Demo & Remediation		100%
U215 I-5 Undercrossing		100%
Tunnels		
U220 UWS to CHS		95.0%
U230 CHS to PSST		97.0%
Stations		
U240 Capitol Hill Station		
U250 University of WA Station		53%
Systems		
U820 Yard Expansion		100.0%
U830 Systemwide & Trackworks		
Other Systems Contracts		30%
Overall Major Construction		61.6%

Note: The overall construction progress above is based on a weighted combination of duration, schedule and cost % complete for individual construction contracts as compared to the overall U-Link construction contracts.

Cost Contingency Management

Project contingencies continue to remain at healthy levels due to the favorable construction bidding climate, ROW acquisition cost trends, diligent project risk management practices and excellent tunneling conditions. December's overall contingency balance remains at approximately $357.5M. Contingency level continues to be well above the Planned Contingency Drawdown; the projected planned balance for the end of 4th QTR 2012 ranges between $166M and $157M, and the Contingency Buffer was projected to be in the range of $169M and $149M. The next planned reduction are expected to be in the range of $157M to $137M and 149M to 133M in Q2 2013 for Planned Contingency and Contingency Buffer, respectively. The planned Reserved Contingency balance was last projected to drop from $150M to $80M at the end of the 2nd QTR 2012 (see contingency curve at the bottom of page) in anticipation of the completion of tunneling and the next projected plan reduction is from $80M to $50M at the start of Q2 2013.

Design Allowance: The balance of design allowance has been reduced to $1.1M and is consistent with the project cycle as all the major design has been completed. The level of design allowance currently represents less than 1/2% of the total remaining scope in the project that has not been procured.

Allocated Contingency: The allocated contingency increased to $303.5M, despite routine change orders drawing down on this contingency. Allocated Contingency also remains stable and has increased over the Baseline Cost Estimate amounts.

Unallocated Contingency (UAC): The UAC balance remains at $52.9M due and continues to remain stable compared to the Baseline Cost Estimate amount of $53.7M.

Contingency Status	BCE		Current Status	
	Amount	% of Total	Remaining Amount	% Remaining Work
Design Allowance	$103.9	7.8%	$1.1	0.3%
Allocated Contingency	$264.3	19.8%	$303.5	77.3%
Unallocated Contingency	$53.7	4.0%	$52.9	13.5%
Total:	**$421.9**	**31.6%**	**$357.5**	**91.1%**
Percentage = Contingency $ /(EFC or Remain. Work $ ex-Contingencies)				

Table figures in millions

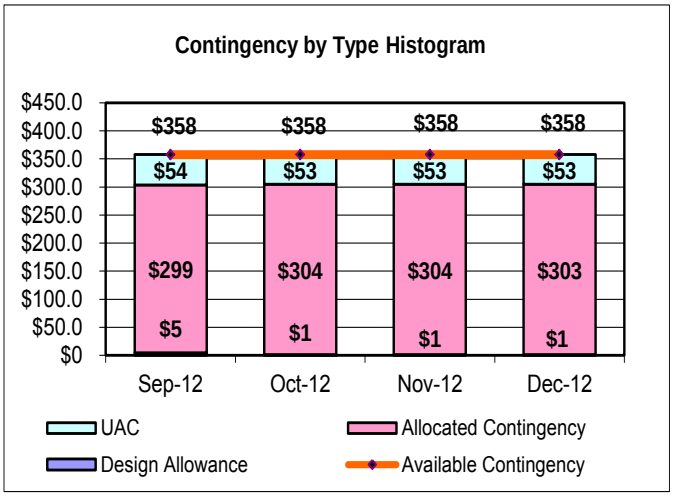
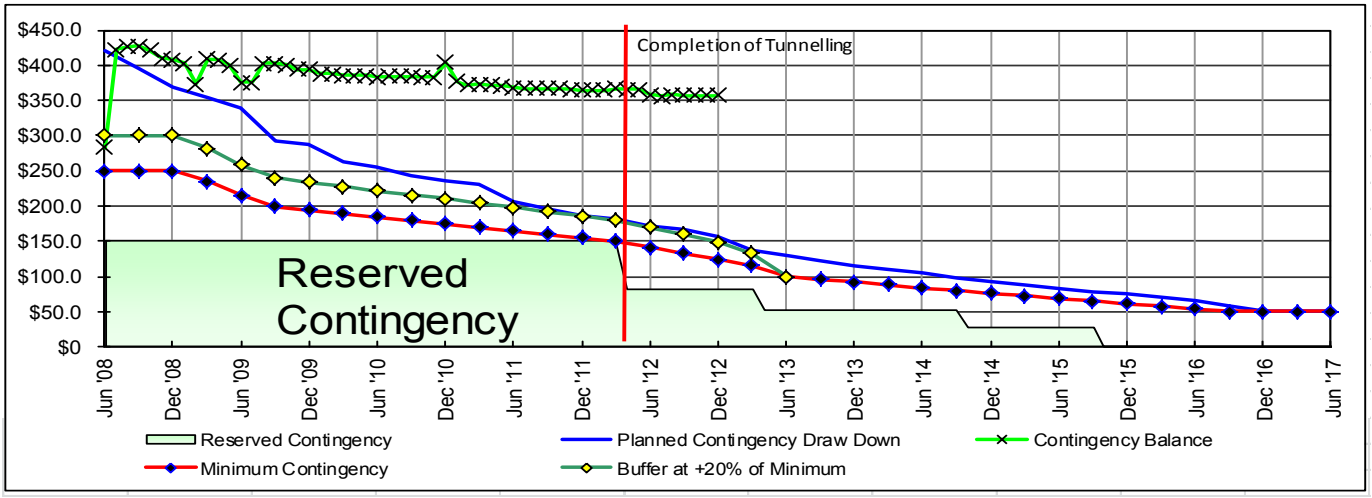


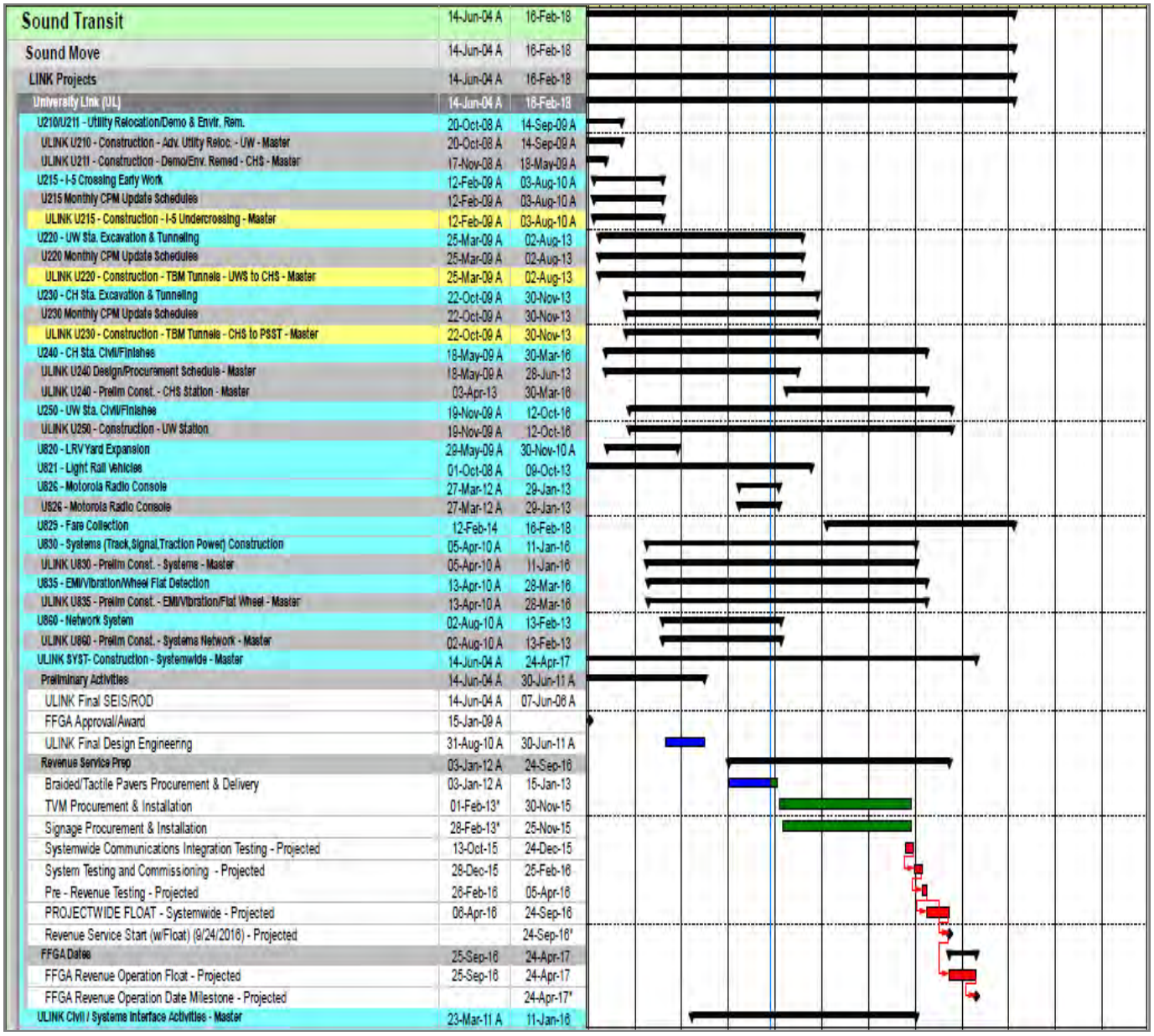
Table figures in millions

MINIMUM CONTINGENCY CURVES as of December 31, 2012 **$ in millions**



Project Schedule Summary

The University Link schedule is provided below. U210, U211 and U215 early work contracts have been completed. The U820 LRV Storage Yard Expansion Contractor has also completed all work. The U220 Northbound (NB) TBM completed mining on April 2012 and the Southbound (SB) TBM arrived at the Capitol Hill Station in March 2012. U220 cross passage (CP) mining is 100% complete; cross passage and tunnel finishes continue. The U230 TBM mining and cross passage excavation have been completed; cross passage and tunnel finishes continue. In U250, shoring and decking for the roof level between Grids 3 and 4 commenced. The Montlake Triangle Project pedestrian bridge work continued with girder web wall reinforcing steel and post-tensioning ducts being installed in anticipation of concrete placement next period. This period, Area 'B' was handed over to the U240 Contractor; onsite personnel moved into the completed office trailer. Prep work continues on the lagging wall in advance of waterproofing. U830 Contractor has received NTP. Coordination between the U830 Systems contractor and the station contractors continue. Procurement is expected to commence for U835 EMI/Vibration in the 1st QTR 2013. U860 Fiber Retrofit; upgrades and fiber installation is now complete and close-out is expected by next period. The targeted revenue service milestone remains September 24, 2016.

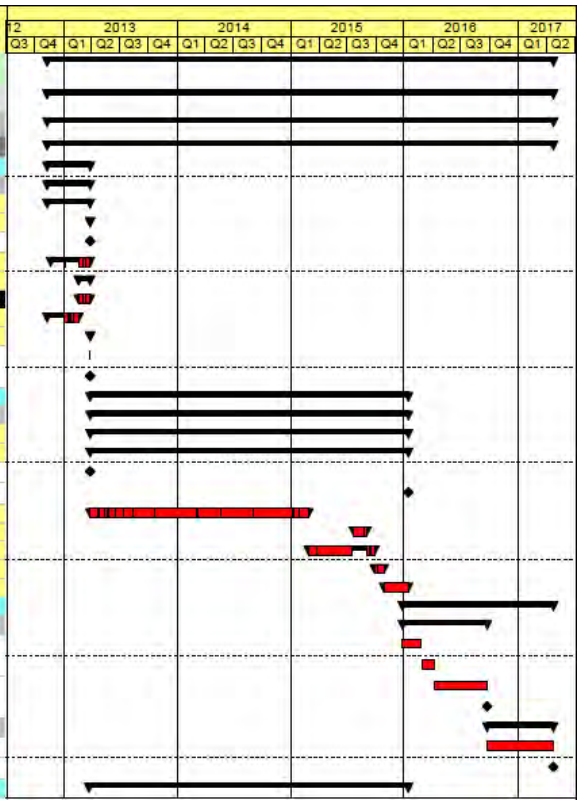


Sound Transit	14-Jun-04 A	16-Feb-18
Sound Move	14-Jun-04 A	16-Feb-18
LINK Projects	14-Jun-04 A	16-Feb-18
University Link (UL)	14-Jun-04 A	16-Feb-18
U210/U211 - Utility Relocation/Demo & Envir. Rem.	20-Oct-08 A	14-Sep-09 A
ULINK U210 - Construction - Adv. Utility Reloc. - UW - Master	20-Oct-08 A	14-Sep-09 A
ULINK U211 - Construction - Demo/Env. Remed - CHS - Master	17-Nov-08 A	18-May-09 A
U215 - I-5 Crossing Early Work	12-Feb-09 A	03-Aug-10 A
U215 Monthly CPM Update Schedules	12-Feb-09 A	03-Aug-10 A
ULINK U215 - Construction - I-5 Undercrossing - Master	12-Feb-09 A	03-Aug-10 A
U220 - UW Sta. Excavation & Tunneling	25-Mar-09 A	02-Aug-13
U220 Monthly CPM Update Schedules	25-Mar-09 A	02-Aug-13
ULINK U220 - Construction - TBM Tunnels - UWS to CHS - Master	25-Mar-09 A	02-Aug-13
U230 - CH Sta. Excavation & Tunneling	22-Oct-09 A	30-Nov-13
U230 Monthly CPM Update Schedules	22-Oct-09 A	30-Nov-13
ULINK U230 - Construction - TBM Tunnels - CHS to PSST - Master	22-Oct-09 A	30-Nov-13
U240 - CH Sta. Civil/Finishes	18-May-09 A	30-Mar-16
ULINK U240 Design/Procurement Schedule - Master	18-May-09 A	28-Jun-13
ULINK U240 - Prelim Const. - CHS Station - Master	03-Apr-13	30-Mar-16
U250 - UW Sta. Civil/Finishes	19-Nov-09 A	12-Oct-16
ULINK U250 - Construction - UW Station	19-Nov-09 A	12-Oct-16
U820 - LRV Yard Expansion	29-May-09 A	30-Nov-10 A
U821 - Light Rail Vehicles	01-Oct-08 A	09-Oct-13
U826 - Motorola Radio Console	27-Mar-12 A	29-Jan-13
U826 - Motorola Radio Console	27-Mar-12 A	29-Jan-13
U829 - Fare Collection	12-Feb-14	16-Feb-18
U830 - Systems (Track,Signal,Traction Power) Construction	05-Apr-10 A	11-Jan-16
ULINK U830 - Prelim Const. - Systems - Master	05-Apr-10 A	11-Jan-16
U835 - EMI/Vibration/Wheel Flat Detection	13-Apr-10 A	28-Mar-16
ULINK U835 - Prelim Const. - EMI/Vibration/Flat Wheel - Master	13-Apr-10 A	28-Mar-16
U860 - Network System	02-Aug-10 A	13-Feb-13
ULINK U860 - Prelim Const. - Systems Network - Master	02-Aug-10 A	13-Feb-13
ULINK SYST- Construction - Systemwide - Master	14-Jun-04 A	24-Apr-17
Preliminary Activities	14-Jun-04 A	30-Jun-11 A
ULINK Final SEIS/ROD	14-Jun-04 A	07-Jun-06 A
FFGA Approval/Award	15-Jan-09 A	
ULINK Final Design Engineering	31-Aug-10 A	30-Jun-11 A
Revenue Service Prep	03-Jan-12 A	24-Sep-16
Braided/Tactile Pavers Procurement & Delivery	03-Jan-12 A	15-Jan-13
TVM Procurement & Installation	01-Feb-13*	30-Nov-15
Signage Procurement & Installation	28-Feb-13*	25-Nov-15
Systemwide Communications Integration Testing - Projected	13-Oct-15	24-Dec-15
System Testing and Commissioning - Projected	28-Dec-15	25-Feb-16
Pre - Revenue Testing - Projected	26-Feb-16	05-Apr-16
PROJECTWIDE FLOAT - Systemwide - Projected	06-Apr-16	24-Sep-16
Revenue Service Start (w/Float) (9/24/2016) - Projected		24-Sep-16*
FFGA Dates	25-Sep-16	24-Apr-17
FFGA Revenue Operation Float - Projected	25-Sep-16	24-Apr-17
FFGA Revenue Operation Date Milestone - Projected		24-Apr-17*
ULINK Civil / Systems Interface Activities - Master	23-Mar-11 A	11-Jan-16

Progress and Critical Path Analysis

The U-Link master schedule update contains the tunnel contractors' schedules and interfaces with the stations and U830 (track, signal, traction power and communications system) schedules. Tunneling commenced in the 2nd QTR 2011 with the TBM assembly and launch. TBM mining was completed as of May 2012 and cross passage work is underway and expected to be completed by 1st QTR 2013. When U230 is substantially complete, rail distribution will commence and the U830 contractor will mobilize. The U240 Capitol Hill Station is also expected to be well underway at that time. OCS installation will start following rail distribution in early 2015. Substations will then be completed at each station in the 2nd QTR 2015 and U830 system-wide communication integration testing will commence in the 3rd QTR 2015.

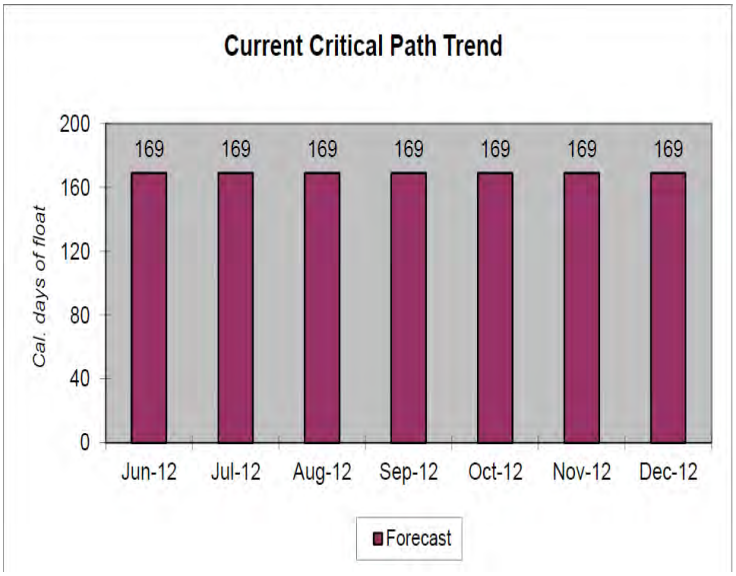
Activity Name	Start	Finish
Sound Transit	12-Nov-12 A	24-Apr-17
Sound Move	12-Nov-12 A	24-Apr-17
LINK Projects	12-Nov-12 A	24-Apr-17
University Link (UL)	12-Nov-12 A	24-Apr-17
U230 - CH Sta. Excavation & Tunneling	12-Nov-12 A	27-Mar-13
U230 Monthly CPM Update Schedules	12-Nov-12 A	27-Mar-13
ULINK U230 - Construction - TBM Tunnels - CHS to PSST - Master	12-Nov-12 A	27-Mar-13
Current Calculated Milestone Dates	27-Mar-13	27-Mar-13
Current Calculated MS 4 Substantial Completion NTP+1157(03/13/13)		27-Mar-13
Northbound (NB) Tunnel	21-Nov-12 A	27-Mar-13
Southbound (SB) Tunnel	21-Feb-13	27-Mar-13
SB Tunnel Non-Embedded Wk	21-Feb-13	27-Mar-13
Pine Street Site	12-Nov-12 A	20-Feb-13
Contract Closeout	27-Mar-13	27-Mar-13
Substaintial Completion as per Specs 01 20 00. 1.05 C.2.a	27-Mar-13	27-Mar-13
All U230 Project Work Completed		27-Mar-13
U830 - Systems (Track,Signal,Traction Power) Construction	27-Mar-13	12-Jan-16
ULINK U830 - Prelim Const. - Systems - Master	27-Mar-13	12-Jan-16
Construction	27-Mar-13	12-Jan-16
Milestones	27-Mar-13	12-Jan-16
NTP for construction - U830 (Trackwork)	27-Mar-13	
U830 Substantial Completion		12-Jan-16
Trackwork	27-Mar-13	26-Feb-15
Traction Power Substations	21-Jul-15	31-Aug-15
OCS	27-Feb-15	28-Sep-15
Signal System	29-Sep-15	28-Oct-15
System Testing	29-Oct-15	12-Jan-16
ULINK SYST- Construction - Systemwide - Master	28-Dec-15	24-Apr-17
Revenue Service Prep	28-Dec-15	24-Sep-16
System Testing and Commissioning - Projected	28-Dec-15	25-Feb-16
Pre - Revenue Testing - Projected	26-Feb-16	05-Apr-16
PROJECTWIDE FLOAT - Systemwide - Projected	06-Apr-16	24-Sep-16
Revenue Service Start (w/Float) (9/24/2016) - Projected		24-Sep-16*
FFGA Dates	25-Sep-16	24-Apr-17
FFGA Revenue Operation Float - Projected	25-Sep-16	24-Apr-17
FFGA Revenue Operation Date Milestone - Projected		24-Apr-17*
ULINK Civil / Systems Interface Activities - Master	26-Mar-13	12-Jan-16



Critical Path

The critical path for the University Link schedule (above) derives from the completion of the cross passages and finishes between CHS to PSST (U230), to the installation of track, signals and OCS in the tunnels. The current U230 monthly schedule update is reporting 14 days of negative float. Delays to final concrete activities at Pine Street continue to impact the work this period.

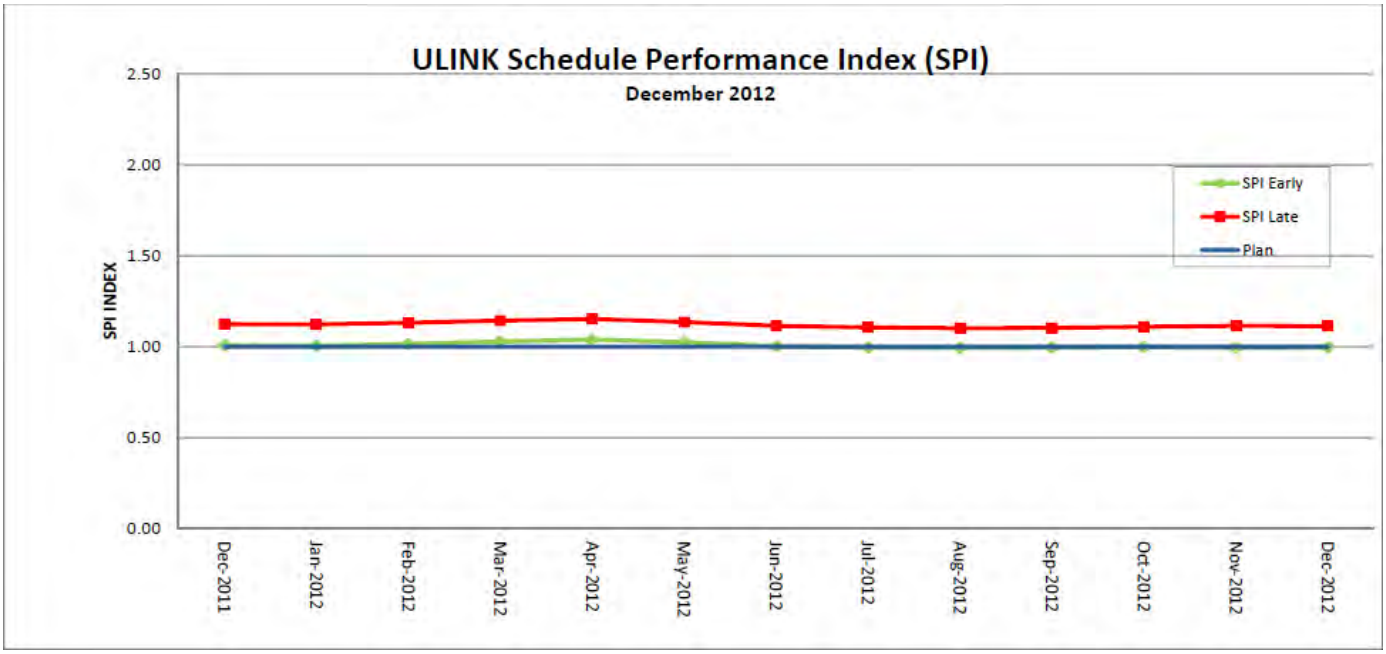
A change order for three days of severe weather in January 2012 previously reduced the U-Link project float contingency to 169 days. No additional delays occurred this period. Progress will continue to be monitored closely.



Progress and Critical Path Analysis, continued

Schedule Performance Index

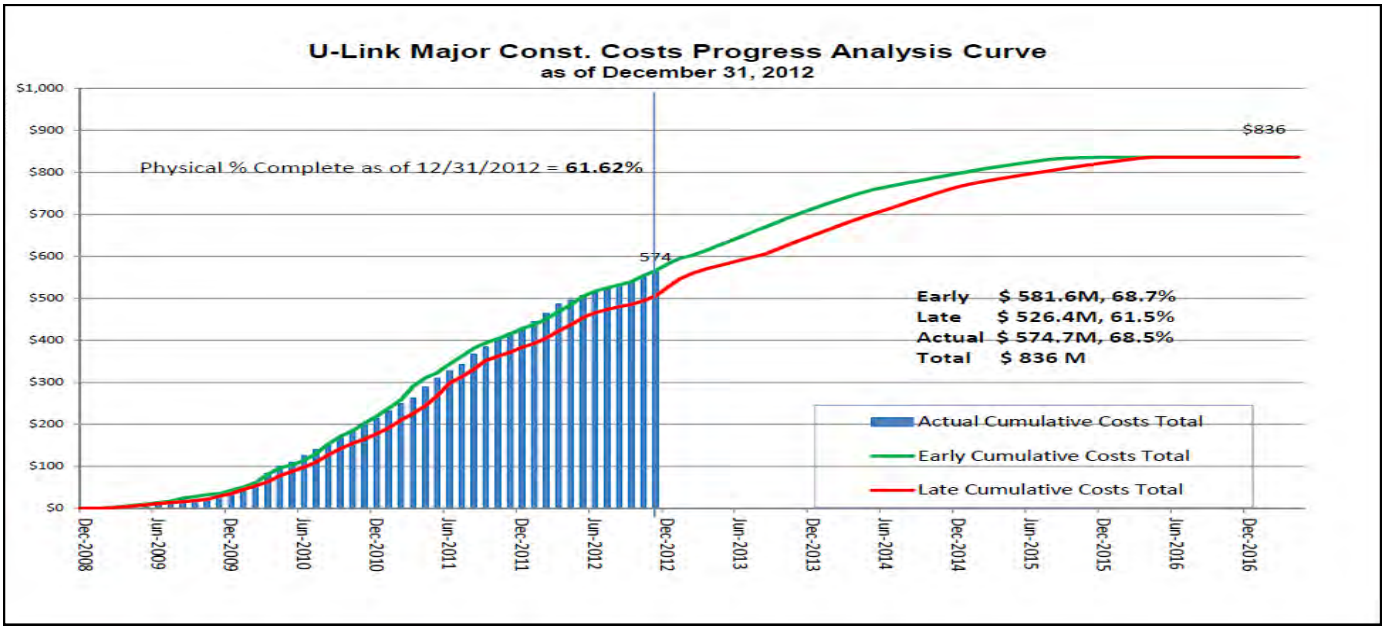
The Schedule Performance Index (SPI) for U-Link remain below a 1.00 at .99 based on slow progress at both U220 and U230. (See details on individual contract sections.) Progress will continue to be monitored closely.



Cost Progress Analysis

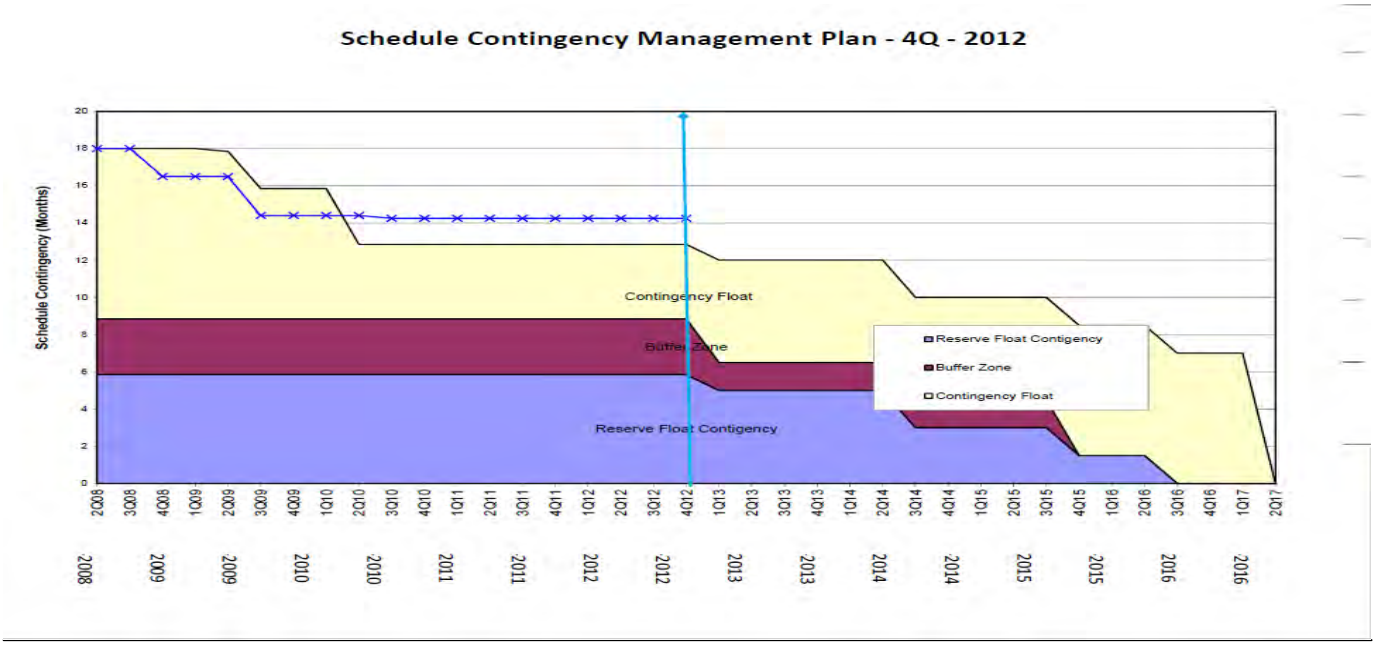
U220 and U230 cross passage excavations are now complete; tunnel and cross passage finishes will continue through to Substantial Completion. U250 continues to progress ahead of schedule.

Overall U-Link physical % complete is at 61.62%. Below is a graphical representation of the progress of major construction contracts cost compared to the early/late projections.



Schedule Contingency Management

The "Minimum Schedule Contingency Curves" were established in the Project Execution Plan (PEP). The PEP segregated Schedule Contingency into "Forced Lag," which is a built-in float on the Critical Path; "Buffer Float," which is the duration between Sound Transit's targeted Revenue Operation Date and the Schedule Revenue Operation Date; "Contingency Float," which is the duration between Sound Transit targeted Revenue Operation Date and the FFGA Revenue Operation Date, and "Desired Minimum Float" which is the amount of schedule float the FTA requires Sound Transit to maintain. The current schedule contingency balance continues to be 14 months, 6 months above the "Desired Minimum Float" required by the PEP.



Right-of-Way

The U-Link project involved the acquisition of a range of property interests, including fee takings for stations and staging areas, tunnel easements for the running tunnels, acquisitions from the University of Washington and airspace leases with the Washington Department of Transportation. These acquisitions required relocation of 141 owners and tenants. The right-of-way program status is summarized below.

Line Section	Total Parcels Certified	Offers Made	Signed Agreements	Admin. Settlements	Possession and Use	Closings to date	Relocations Required	Relocations Completed
Capitol Hill Station	19	19				19	140	140
Tunnel Easements	223	222				222	1	1
TOTAL	242	241				241	141	141

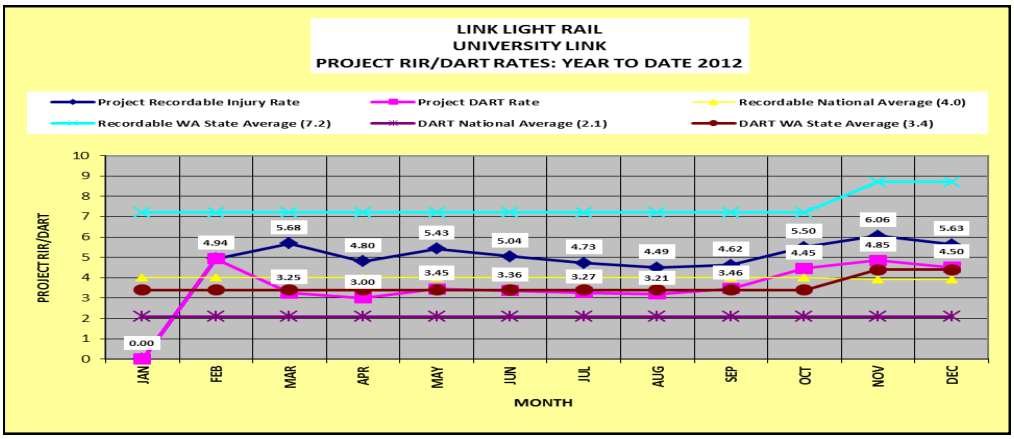
Capitol Hill Station: The acquisitions and relocations for the station site are complete.

Tunnel Easements: All 222 parcels have closed. A WSDOT parcel continues to be in pending status; Sound Transit may not need this parcel for the project.

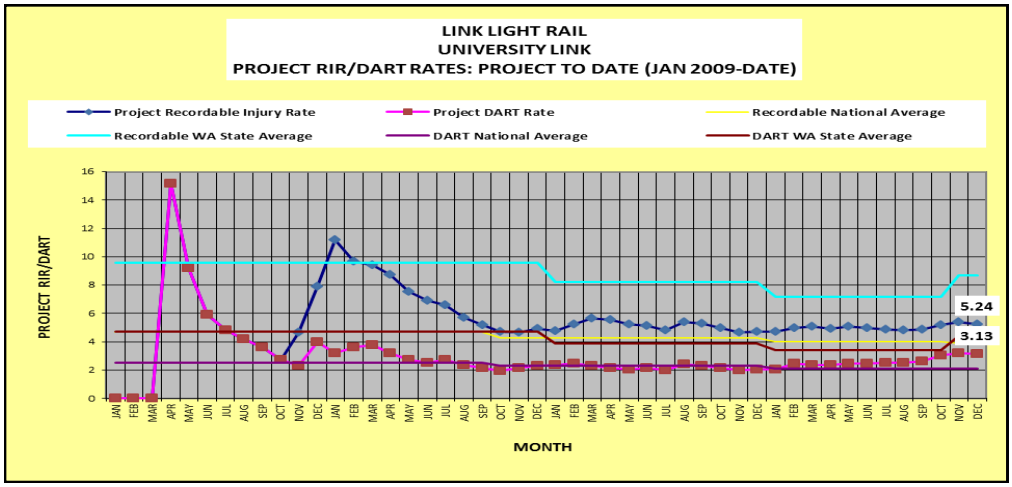
Construction Safety

Safety statistics for the reporting period and year-to-date are summarized in the table and charts.

Data/Measure	December 2012	Year to Date	Project to Date
Recordable Injury/Illness Cases	0	25	57
Days Away From Work Cases	0	6	12
Total Days Away From Work	0	235	462
Restricted or Modified Work Cases	0	14	22
Total Days Restricted or Modified Work	62	657	1038
First Aid Cases	2	60	101
Reported Near Mishaps	4	70	169
Ave. Nos. of Employees on Worksite	365	-	-
Total # of Hours (GC & Subs)	62,628	888,082	2,174,508
OSHA Incident Rates	**Monthly Average**	**Year to Date**	**Project to Date**
Recordable Injury Rate	0.00	5.63	5.24
DART Rate	0.00	4.50	3.13
Recordable National Average	3.90	3.90	3.90
DART National Average	2.10	2.10	2.10
Recordable WA State Average	8.70	8.70	8.70
DART WA State Average	4.40	4.40	4.40


LINK LIGHT RAIL
UNIVERSITY LINK
PROJECT RIR/DART RATES: YEAR TO DATE 2012
Project Recordable Injury Rate
Project DART Rate
Recordable National Average (4.0)
Recordable WA State Average (7.2)
DART National Average (2.1)
DART WA State Average (3.4)
PROJECT RIR/DART
MONTH
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
0.00 4.94 5.68 4.80 5.43 5.04 4.73 4.49 4.62 5.50 6.06 5.63
0.00 3.25 3.00 3.45 3.36 3.27 3.21 3.46 4.45 4.85 4.50

The charts to the right show University Link's Recordable Injury Rates (*RIR*) and University Link's Days Away, Restricted or Modified (*DART*) Injury Rate as compared to the national average.



Quality Assurance Activities

Activities

- U230: Performed QA Surveillance of Pine Street Audit
- U240: Reviewed Waterproofing CWP.

Issues

- None to report.

Summary

Description	Dec 2012	Notes
No. of Audits Planned	0	
No. of Audits Completed	0	None
Reports in Progress	3	U220 Substance Abuse Program, U230 RE, U830 Criteria Conformance Safety Certification
No. of Audits Postponed	0	None

Sound Transit Board Actions

Board motions and resolutions directly related to University Link are summarized in the table below.

Motion Number	Description	Date
	None to report.	

Community Outreach

- Circulated a construction alert to neighbors on E. McGraw St. announcing the conclusion of the dewatering project and the upcoming restoration work.
- The U-Link newsletter was distributed to approximately 3,500 people.
- Notified property owners about temporary parking restrictions to re-pave McGraw Street.

Capitol Hill Business Mitigation

- Sent the December business mitigation newsletter through Gov. Delivery to all Capitol Hill business owners, Chamber and BIA members.
- Met with web agency working with yourcapitolhill.com V2 to review contract and discuss social media and next steps.
- Met with the Capitol Hill Community Council to discuss 2013 mitigation activities.
- Scheduled a meeting with the Grater Seattle Business Association to discuss a potential 2013 business mitigation partnership.

Environmental

- Stormwater and industrial waste discharge permit compliance, along with the hazardous materials oversight, continue for the U-Link construction sites.

Early Works Contracts (U210, U211 & U215)

Early work contracts have been completed.

For the U210 Contract (Advanced Utility Relocation), Final Acceptance issued in May 2011. Finalizing remaining closeout items.

For the U211 Contract (Demo and Environmental Remediation), Final Acceptance has been reached.

For the U215 Contract (I-5 Crossing), All issues in this contract have been resolved.

U220 Contract - *TBM Tunnel (UWS to CHS)*

Current Progress

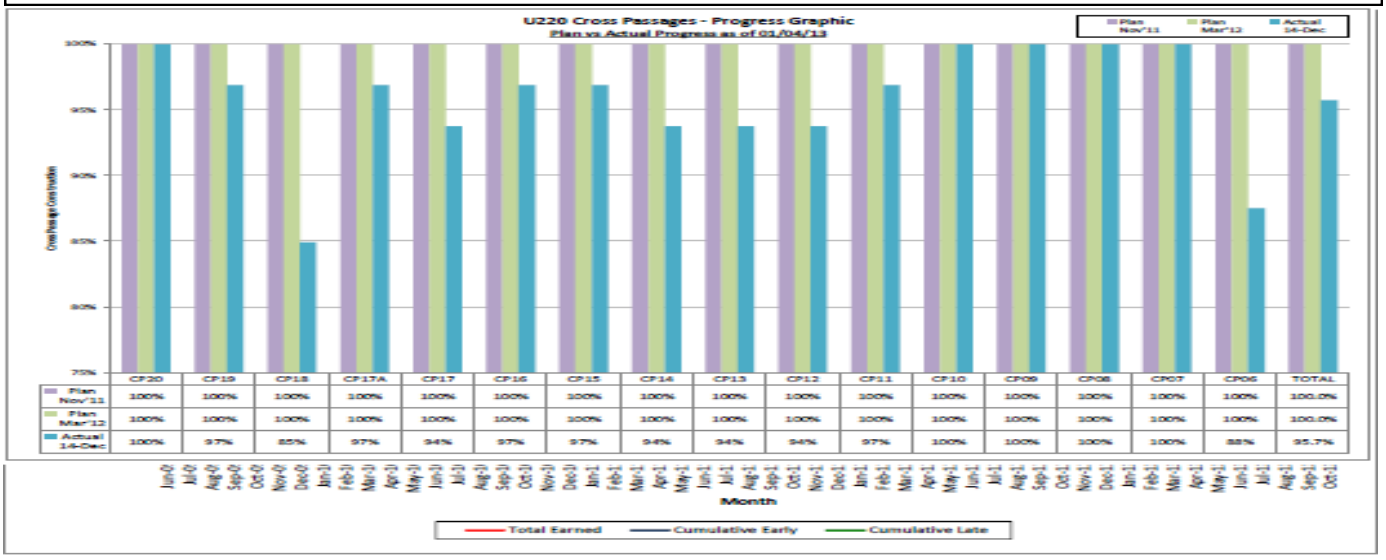
TBM mining and cross passage excavation is complete. Handover of Area G1 to the U230 Contractor took place on Nov. 1. Cross passage excavation is complete and cross passage propping demo continues.

Physical % complete is at 98% against 83% contract time expended.

Northbound Tunnel	Invert Concrete and Embedments	Non-Embedded Conduits (crown)	Fire Suppression Standpipe	Tunnel Walkway Concrete
Total Length (linear feet)	11,392	11,392	11,392	11,392
Completed This Week (linear feet)	0	0	0	0
Completed To Date (linear feet)	11,072	10,432	7,770	11,072
Percent Complete (linear feet)	97.2%	91.6%	68.2%	97.2%

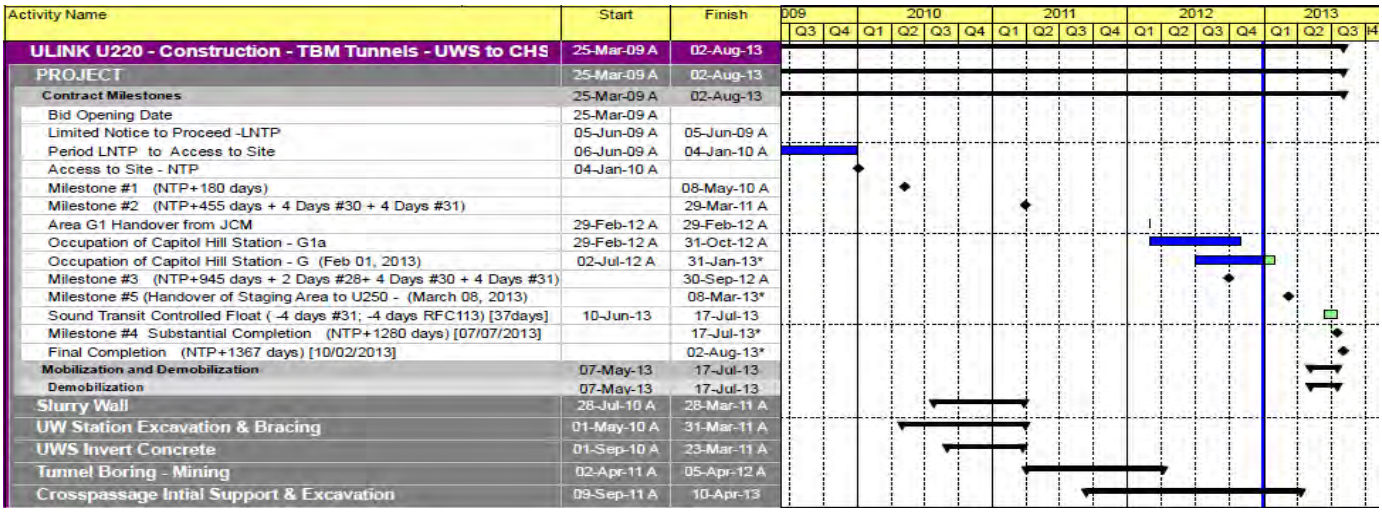
Southbound Tunnel	Invert Concrete and Embedments	Non-Embedded Conduits (crown)	Fire Suppression Standpipe	Tunnel Walkway Concrete
Total Length (linear feet)	11,392	11,392	11,392	11,392
Completed This Week (linear feet)	0	0	0	1,415
Completed To Date (linear feet)	11,072	10,432	0	9,150
Percent Complete (linear feet)	97.2%	91.6%	0.0%	80.3%

Cross Passages (Elec & Mech)	CP20	CP19	CP18	CP17A	CP17	CP16	CP15	CP14	CP13	CP12	CP11	CP10	CP09	CP08	CP07	CP06
Electrical Conduit and Equipment	100%	100%	0%	100%	0%	100%	100%	100%	100%	100%	30%	0%	0%	0%	0%	0%
Fire Suppression Standpipe																



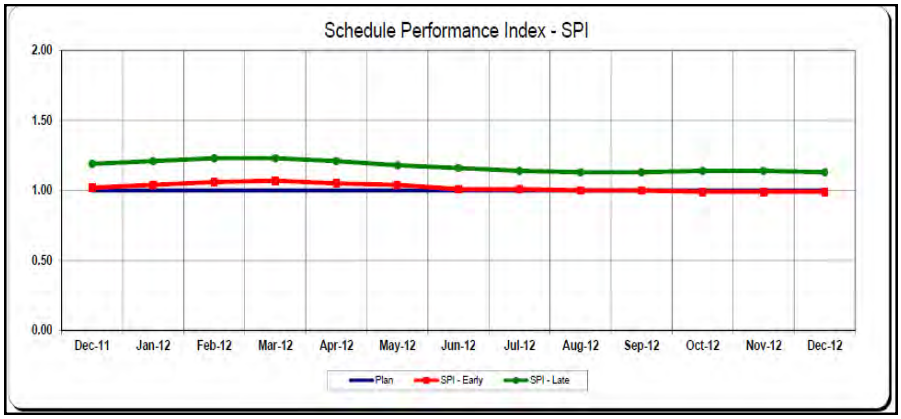
Schedule/Critical Path

The schedule update for this period is reporting ten days of negative float to Milestone #4, Substantial Completion, as the Contractor continues cross passage and tunnel finishes. Cross passage propping demo activities continue to slow progress on the installation of tunnel and cross passage finishes. Production rates are being monitored closely.


Activity Name
Start
Finish
2009 2010 2011 2012 2013
Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
ULINK U220 - Construction - TBM Tunnels - UWS to CHS 25-Mar-09 A 02-Aug-13
PROJECT 25-Mar-09 A 02-Aug-13
Contract Milestones 25-Mar-09 A 02-Aug-13
Bid Opening Date 25-Mar-09 A
Limited Notice to Proceed -LNTP 05-Jun-09 A 05-Jun-09 A
Period LNTP to Access to Site 06-Jun-09 A 04-Jan-10 A
Access to Site - NTP 04-Jan-10 A
Milestone #1 (NTP+180 days) 08-May-10 A
Milestone #2 (NTP+455 days + 4 Days #30 + 4 Days #31) 29-Mar-11 A
Area G1 Handover from JCM 29-Feb-12 A 29-Feb-12 A
Occupation of Capitol Hill Station - G1a 29-Feb-12 A 31-Oct-12 A
Occupation of Capitol Hill Station - G (Feb 01, 2013) 02-Jul-12 A 31-Jan-13*
Milestone #3 (NTP+945 days + 2 Days #28+ 4 Days #30 + 4 Days #31) 30-Sep-12 A
Milestone #5 (Handover of Staging Area to U250 - (March 08, 2013) 08-Mar-13*
Sound Transit Controlled Float (-4 days #31; -4 days RFC113) [37days] 10-Jun-13 17-Jul-13
Milestone #4 Substantial Completion (NTP+1280 days) [07/07/2013] 17-Jul-13*
Final Completion (NTP+1367 days) [10/02/2013] 02-Aug-13*
Mobilization and Demobilization 07-May-13 17-Jul-13
Demobilization 07-May-13 17-Jul-13
Slurry Wall 28-Jul-10 A 28-Mar-11 A
UW Station Excavation & Bracing 01-May-10 A 31-Mar-11 A
UWS Invert Concrete 01-Sep-10 A 23-Mar-11 A
Tunnel Boring - Mining 02-Apr-11 A 05-Apr-12 A
Crosspassage Intial Support & Excavation 09-Sep-11 A 10-Apr-13

Schedule Performance Index

The U220 Schedule Performance Index (SPI) remains below a 1.00 at .99, based on early finish. Cross passage demo propping delays have slowed production at tunnel and cross-passage finishes. Sound Transit will continue to monitor progress as the U220 cross passage and tunnel finishes continue through the end of the project.



Key Activities

Current Period

- *NB Tunnel:* Continued installing permanent fire standpipe brackets and hanging of pipe; continued installation of permanent electrical system. Began installation of tunnel handrail brackets and rebar for TE ductbank.
- *SB Tunnel:* Continued installation of rebar, forms and concrete for walkway; continued installation of permanent electrical system. Began installation of permanent fire stand pipe brackets and tunnel handrail brackets.
- Began infill concrete work as cross passages in both tunnels.
- *E. Roanoke Street:* Completed pavement replacement & site restoration.
- *Cross passages:* Continued NB and SB tunnel propping demolition; continued installation of barrel and bulkhead concrete in remaining cross passages; and continued installation of electrical equipment.

Next Period

- *NB & SB Tunnels:* Continue installation of permanent fire stand pipe brackets, permanent electrical system, tunnel handrail brackets, and rebar for TE ductbank. Continue infill concrete work at cross passages
- *Cross Passages:* Continue propping demolition; complete installation of bulkhead & barrel concrete.; continue installation of electrical equipment and begin FUKO grouting. Complete pavement replacement and site restoration of CP# 17 surface well site.

Closely Monitored Issues

- ST and the CM teams of U220, U250 and U830 are reviewing the early handover of U220 station box and tunnels to U250/U830 contractors.

Cost Summary

Present Financial Status	Amount
U220 Contractor— Traylor Frontier-Kemper Joint Venture (TFK)	
Original Contract Value	$309,175,274
Change Order Value	10,527,048
Current Contract Value	$ 319,702,322
Total Actual Cost (Amount Billed)	$301,511,942
% of Authorized Billed to-date	95.8%
Physical Percent Complete:	98%
Authorized Contingency	$30,917,527
Contingency Drawdown	$10,657,623
Contingency Index*	2.84

**Physical % complete / % contingency drawn down*

Invert propping pour back at Southbound CP#10.

U230 Contract - *TBM Tunnel (CHS to PSST)*

Current Progress

The Northbound (NB) TBM mining was completed in November 2011 and Southbound (SB) TBM mining was completed in May 2012. Cross passage excavation is complete. Cross passage and tunnel finishes continue in both NB and SB tunnels. SB Low Point Sump concrete and NB Low Point Sump excavation were completed last period and the lower pit has been poured. Work progress continues with approximately 99% physical completion against 98% contract time expended. Production continued to be monitored closely.

Southbound Tunnel Data:

SB Tunnel Walkway		% Comp.
Total Length (linear feet):	3780	99%
Walkwat Installed this Week (linear feet):	0	
Total Installed to Date (linear feet):	3755	

SB Fire Suppression Standpipe		% Comp.
Total Length (linear feet):	3780	98%
Tunnel Standpipe Installed this Week	0	
Standpipe Installed to Date (linear feet):	3700	

SB Tunnel Non-Embedded Electrical		% Comp.
Total Length (linear feet):	3780	98%
Non-Embedded Elect. this Week (linear feet):	0	
Total Non-Embedded Electrical to Date (linear feet):	3709	

Legend	
Tunnel Invert Concreting:	
Invert Mechanical (Embedded):	
Non-Embedded Electrical:	
Fire Standpipe	
Tunnel Walkway	

SB Tunnel Electrical Ductbank in Walkway		% Comp.
Total Length (linear feet):	3780	99%
Ductbank Installed this Week (linear feet):	0	
Total Installed to Date (linear feet):	3755	

Northbound Tunnel Data:

NB Tunnel Walkway		% Comp.
Total Length (linear feet):	3794	94%
Walkway Installed this Week:	0	
Walkway Intalled to Date (linear feet):	3565	

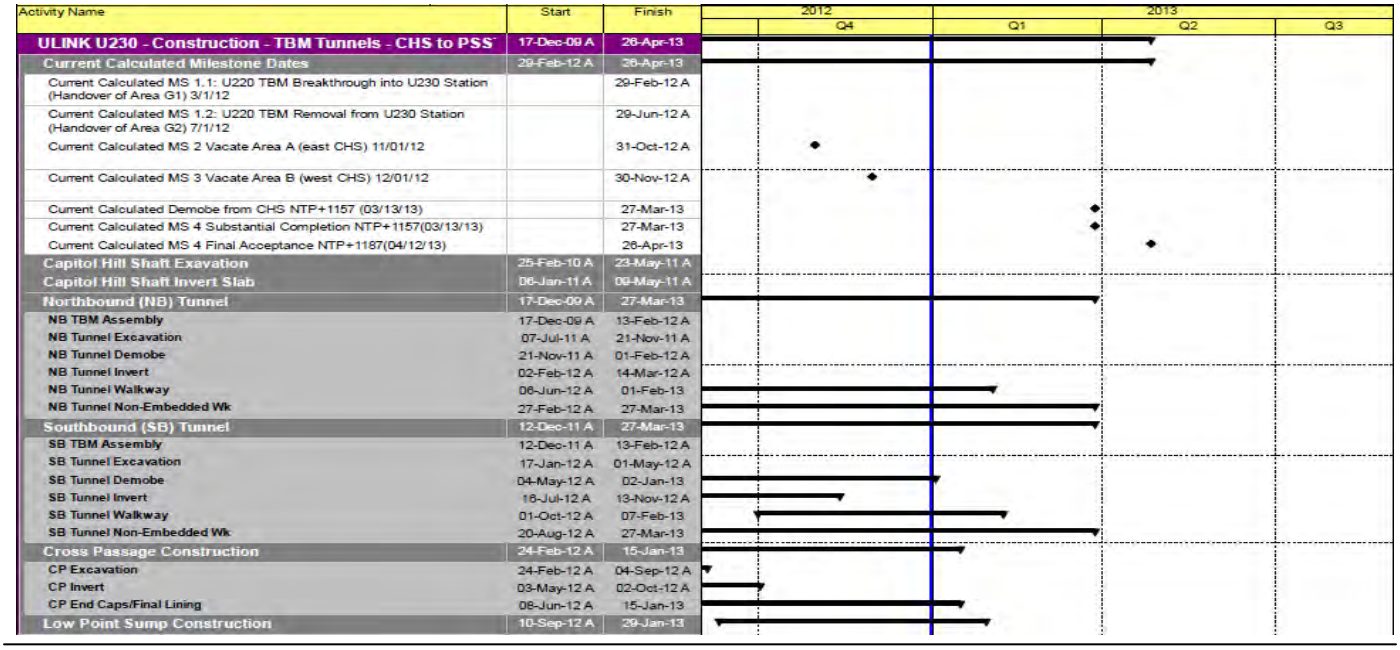
NB Fire Suppression Standpipe		% Comp.
Total Length (linear feet):	3794	94%
Tunnel Standpipe Installed this Week	20	
Standpipe Installed to Date (linear feet):	3570	

NB Tunnel Non-Embedded Electrical		% Comp.
Total Length (linear feet):	3794	93%
Non-Embedded Elect. this Week (linear feet):	0	
Total Non-Embedded Electrical to Date (linear feet):	3510	

NB Tunnel Electrical Ductbank in Walkway		% Comp.
Total Length (linear feet):	3794	94%
Ductbank Installed this Week (linear feet):	0	
Total Installed to Date (linear feet):	3565	

Schedule/Critical Path

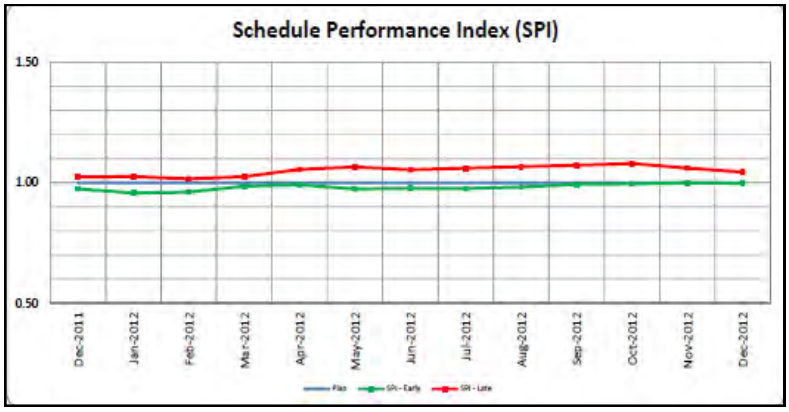
The U230 TBM mining is complete. Milestone #4, Substantial Completion, is forecasting 14 days of negative float based on the December 2012 schedule update. Concrete activities at Pine Street continue to impact the critical path this period. The critical path now runs through the Pine Street final concrete activities and installation and testing of stand-pipe for the fire suppression system. Initial testing of the stand pipe for fire suppression is expected to commence next period.



Activity Name	Start	Finish
ULINK U230 - Construction - TBM Tunnels - CHS to PSS	17-Dec-09 A	26-Apr-13
Current Calculated Milestone Dates	29-Feb-12 A	26-Apr-13
Current Calculated MS 1.1: U220 TBM Breakthrough into U230 Station (Handover of Area G1) 3/1/12		29-Feb-12 A
Current Calculated MS 1.2: U220 TBM Removal from U230 Station (Handover of Area G2) 7/1/12		29-Jun-12 A
Current Calculated MS 2 Vacate Area A (east CHS) 11/01/12		31-Oct-12 A
Current Calculated MS 3 Vacate Area B (west CHS) 12/01/12		30-Nov-12 A
Current Calculated Demobe from CHS NTP+1157 (03/13/13)		27-Mar-13
Current Calculated MS 4 Substantial Completion NTP+1157(03/13/13)		27-Mar-13
Current Calculated MS 4 Final Acceptance NTP+1187(04/12/13)		26-Apr-13
Capitol Hill Shaft Exavation	25-Feb-10 A	23-May-11 A
Capitol Hill Shaft Invert Slab	06-Jan-11 A	09-May-11 A
Northbound (NB) Tunnel	17-Dec-09 A	27-Mar-13
NB TBM Assembly	17-Dec-09 A	13-Feb-12 A
NB Tunnel Excavation	07-Jul-11 A	21-Nov-11 A
NB Tunnel Demobe	21-Nov-11 A	01-Feb-12 A
NB Tunnel Invert	02-Feb-12 A	14-Mar-12 A
NB Tunnel Walkway	06-Jun-12 A	01-Feb-13
NB Tunnel Non-Embedded Wk	27-Feb-12 A	27-Mar-13
Southbound (SB) Tunnel	12-Dec-11 A	27-Mar-13
SB TBM Assembly	12-Dec-11 A	13-Feb-12 A
SB Tunnel Excavation	17-Jan-12 A	01-May-12 A
SB Tunnel Demobe	04-May-12 A	02-Jan-13
SB Tunnel Invert	16-Jul-12 A	13-Nov-12 A
SB Tunnel Walkway	01-Oct-12 A	07-Feb-13
SB Tunnel Non-Embedded Wk	20-Aug-12 A	27-Mar-13
Cross Passage Construction	24-Feb-12 A	15-Jan-13
CP Excavation	24-Feb-12 A	04-Sep-12 A
CP Invert	03-May-12 A	02-Oct-12 A
CP End Caps/Final Lining	08-Jun-12 A	15-Jan-13
Low Point Sump Construction	10-Sep-12 A	29-Jan-13

Schedule Performance Index

The U230 Schedule Performance Index (SPI) remains slightly below 1.0 this period based on early forecasts. Cross passage excavation has been completed. Cross passage and tunnel finishes will continue through the end of the project and will be monitored closely.



Key Activities

Current Period

- *SB Tunnel:* Continued installation of the concrete walkway, 3,755 feet installed out of 3,780 feet. Continued SB sump construction; completed sump concrete work and continued electrical and mechanical installations.
- *NB Tunnel:* Installation of the walkway is ongoing, 3,565 out of 3,794 feet has been installed. Compiled initial tunnel punch list and addressed some of the issues.
- *Cross Passages:* Completed all cross passage excavation and concrete lining work. Continued electrical conduits and panel installation, contract grouting and repairs.
- *CHS:* Continued ongoing support of tunnel activities from Area C.
- *Pine St.:* Continued on the SB tunnel connection including backfill work. Continued formwork, rebar and concreting work at the NB tunnel connection.

Next Period

- *SB tunneling:* Continue installation of the 26kv trough; continue sump construction; complete installation of walkway concrete.
- *NB tunneling:* Continue the NB sump concrete roof work. Complete compilation of the pre-punch list and continue addressing the issues.
- *CHS:* Continue to support tunnel activities from Area C and coordinating work with the station construction and systems contractors.
- *Cross Passages:* Continue various cross passage work.

Closely Monitored Issues

- Sound Transit has denied Claim # 11 regarding JCM's Statement of Entitlement which JCM has appealed.
- Sound Transit is reviewing JCM's claim of changed conditions at CP #3 and JCM's request for compensation; also performing an as-built schedule analysis to determine actual schedule impacts caused by the Differing Site Conditions at CP #5.
- The schedule slippage at the PSST SB Tunnel connection is a concern as it is critical path work. Delays have occurred due to the general complexity of the work.
- It was discovered that multiple areas of the timber lagging in the Capitol Hill station box were not backfilled with CDF. The Contractor has stated they will perform the backfilling work.

Cost Summary

Present Financial Status	Amount
U230 Contractor— JCM Joint Venture	
Original Contract Value	$153,556,000
Change Order Value	$8,650,692
Current Contract Value	$162,206,692
Total Actual Cost (Amount Billed)	$152,711,967
% of Authorized Billed to-date	94%
Physical Percent Complete:	99%
Authorized Contingency	$15,355,600
Contingency Drawdown	$8,650,692
Contingency Index*	1.71

**Physical % complete / % contingency drawn down*

At the PSST, NB tunnel connection work activities ongoing.

U240 Contract – *Capitol Hill Station*

Current Progress

Notice to Proceed (NTP) was issued to the U240 Contractor (Turner Construction Company) last period. The Contractor has commenced mobilization activities and is preparing for the first pour. A baseline CPM schedule submittal is expected next period.

Key Activities

Current Period

- Area B was successfully transferred to U240 on December 3 ahead of the planned date of December 15.
- Completed two story trailer setup and mobilization of onsite personnel.
- Continued prep works on the lagging wall in advance of waterproofing and reinforcing installation in Area's A & B east and west walls.
- Peri truss forming system was delivered and site assembly has commenced.
- Began installation of the new 1200 amp power service that will serve the tower crane.
- Submitted the majority of the initial water proofing, rebar, forming, and concrete submittals and are being reviewed by ST, NTP and START teams.

Next Period

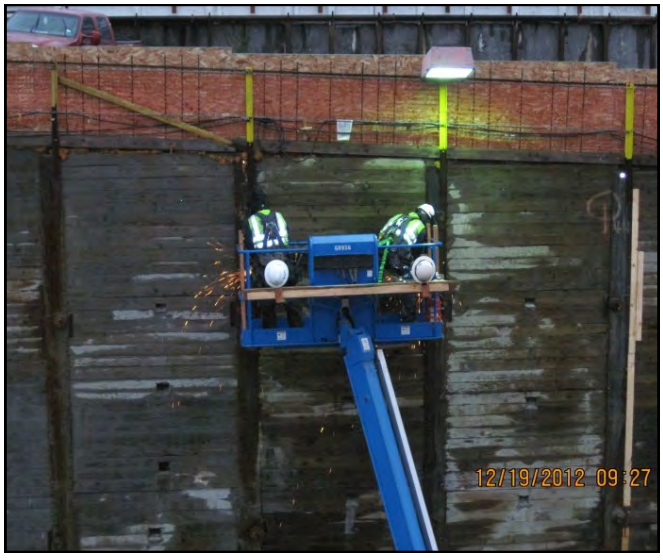
- Continue waterproofing and reinforcing work following completion of prep works on the lagging walls.
- Continue form set assembly and place concrete in late – January.
- Subcontractors continue to work on the 1200 amp temporary power distribution to the power crane.
- Waterproofing subcontractor will begin mobilizing and installing waterproofing felt and membrane splice work.
- Reinforcing subcontractor to continue delivering rebar on site and begin assembly of the reinforcing wall mats.

Closely Monitored Issues

- Turner continues to work on the baseline schedule and schedule of values submittals. ST and Turner will continue finalizing the details, through approval.
- Turner submitted RFC 001 – Preparation of CHS Lag Wall for Waterproofing Installation (Turner determined that additional prep work will be required). ST considers certain components of Turner's RFC to have merit and a Work Directive is in development.
- Turner has discovered additional void areas behind the station box wall lagging. U230 contractor JCM is scheduled to mobilize DBM and coordinate the additional filling of these voids.

Cost Summary

Present Financial Status	Amount
U240 Contractor - Turner Construction Co.	
Original Contract Value	$104,850,276
Change Order Value	$0
Current Contract Value	$104,850,276
Total Actual Cost (Amount Billed)	$878,000
% of Authorized Billed to-date	1%
Physical Percent Complete:	0%
Authorized Contingency	$5,242,514
Contingency Drawdown	$0
Contingency Index	N/A

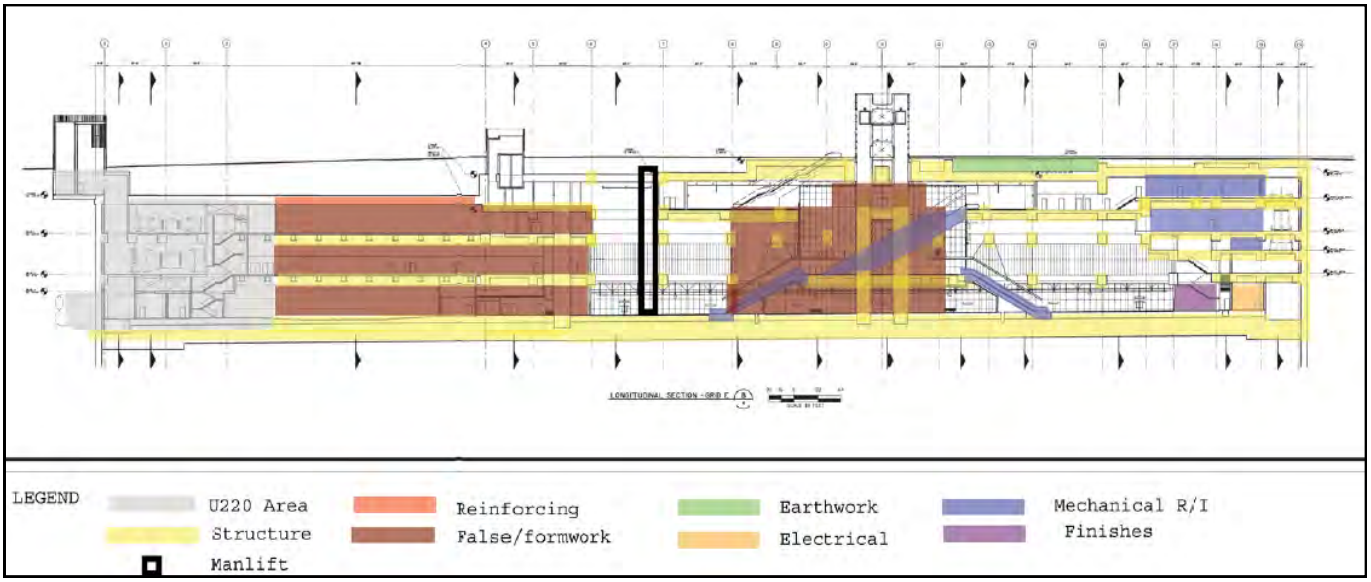


Workers prepping the lagging wall in advance of waterproofing.

U250 Contract –*University of Washington Station*

Current Progress

Infill slab work continues at all levels with roof deck pours complete from Grid 20 to approx. Grid 8.5. Roof Pour from Grid 3 to 4 is expected to take place next period. At the Montlake Triangle Pedestrian Bridge the first base slab pour was complete this period. Work progress continued with approximately 55% physical completion against 48% contract time expended.

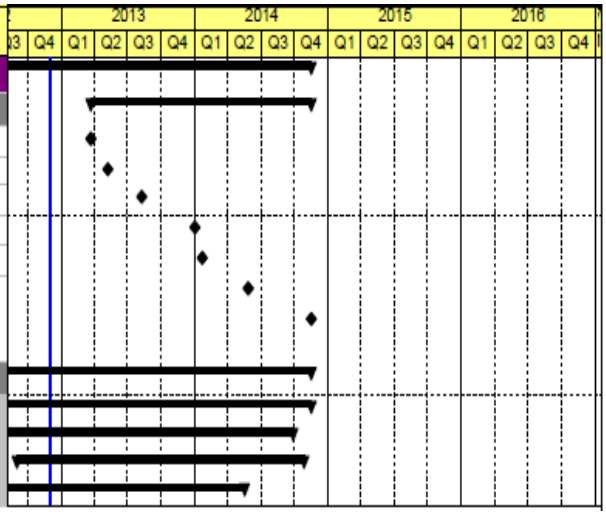


Schedule/Critical Path

Milestone #7, Substantial Completion, is reporting no float. The Contractor is meeting production forecasts at this time.

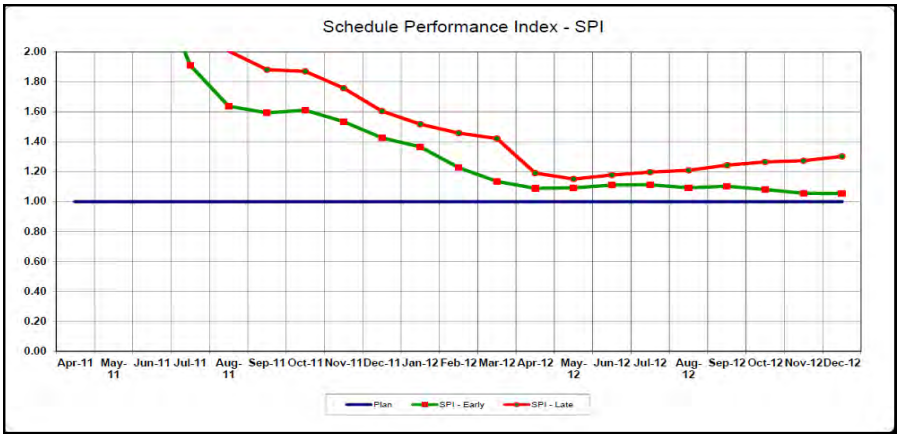
The critical path continues through the installation of the station roof slabs, basement level and platform floor slabs under a modified top down construction plan. Now that the U220 Contractor has completed the tunnel boring from UWS to CHS, the U250 Contractor has commenced work on the crossover area. Systems critical rooms will be made available to the U830 Systems Contractor, as the station and crossover nears completion. Final testing and commissioning will then complete the U250 work.

Activity Name	Start	Finish
ULINK U250 - Construction - UW Station	05-Apr-11 A	14-Nov-14
MILESTONES	22-Mar-13	14-Nov-14
MILESTONE 1 (727d FROM NTP) (31 Mar 13)		22-Mar-13*
MILESTONE 2 (60d FROM OCC OF EAST BOUNDARY F3) (01 Apr 13)		08-May-13*
MILESTONE 3 (880d FROM NTP) (31 Aug 13)		09-Aug-13*
MILESTONE 4 (1001d FROM NTP) (29 Dec 13)		30-Dec-13*
MILESTONE 5 (1033d FROM NTP) (31 Jan 14)		22-Jan-14*
MILESTONE 6 (1160d FROM NTP) (07 Jun 14)		27-May-14*
MILESTONE 7 SUBSTANTIAL COMPLETION OF ALL WORK (1320d FROM NTP) (14 Nov 14)		14-Nov-14*
CONSTRUCTION	05-Apr-11 A	14-Nov-14
STATION	05-Apr-11 A	14-Nov-14
CROSSOVER	01-Aug-12 A	25-Sep-14
ABOVE GRADE ENTRY	31-Aug-12 A	27-Oct-14
PEDESTRIAN BRIDGE	29-Feb-12 A	15-May-14



Schedule Performance Index

The U250 Schedule Performance Index (SPI) remains above a 1.00 at 1.05 this period. Construction progress is trending ahead of the plan but has fallen slightly again this period. The current schedule update indicates that the Contractor is ahead of schedule but interim milestone float is diminishing for Milestone #3. Production levels and material procurement will continue to be monitored closely.



Key Activities

Current Period

- Continued shoring, decking, utilities, reinforcing and placing concrete for Basement, Mezzanine, and Roof Level infill slabs and elevated slabs.
- Continued CMU and Cement Board Walls in various section and levels in the Basement Levels.
- Continued formwork and commenced placing rebar for North Vent Shaft Structure.
- Continued loading in AHUs & tunnel ventilation equip.
- Commenced headhouse columns and crossbeams formwork, reinforcing, and placing concrete.
- *Montlake Triangle Project, SP-1 Pedestrian Bridge*: Completed placing concrete for base slab; continue rebar, and concrete installation for girder web walls.

Next Period

- Continue formwork and commence placing rebar for North Vent Shaft Structure.
- Continue overhead MEP rough-ins at Platform, Basement 3 and mezzanine walls.
- Continue shoring, decking, utilities, reinforcing and placing concrete for Basement, Mezzanine and Roof Level infill slab followed by striping shoring and forms for infill pours.
- Continue CMU starter walls in various sections and levels in the Basement Levels.
- Continue loading AHUs and tunnel ventilation equipment.
- Continue head house columns and crossbeams formwork.
- *Montlake Triangle Project, SP-1 Pedestrian Bridge:* Continue rebar and PT duct installation for girder web walls followed by concrete placement.

Closely Monitored Issues

- Complexity of MTP interface and coordination with UW Husky stadium renovation activity.

Cost Summary

Present Financial Status	Amount
U250 Contractor - Hoffman Construction Co.	
Original Contract Value	141,745,898
Change Order Value	1,763,051
Current Contract Value	143,508,949
Total Actual Cost (Amount Billed)	70,467,404
% of Authorized Billed to-date	49.1%
Physical Percent Complete:	55.2%
Authorized Contingency	7,087,295
Contingency Drawdown	1,763,051
Contingency Index	2.22

Roof level Grids 3 and 4 reinforcing.

U820 Contract - ***LRV Storage and Yard Expansion***

U830 Contract - ***Track, Signal, Traction power and Communications Systems***

P821 Contract - ***Light Rail Vehicles***

C802 Contract - ***Signals Systems***

U830 Contract – ***Track, Signal, Traction Power and Communications***

Key Activities

Current Period

U820- LRV Storage and Yard Expansion
- Completed all work.

P821 – Light Rail Vehicles
- Continued warranty activities.
- Continued minor change order activities.

C802 - Signals System
- Completed all work.

Other Systems
- Completed punch list work for U860 Network Fiber Network.
- Continued coordination of Agency initiated system network standardization.
- Continued manufacturing, staging and pre-installation activities for U826 Radio Console upgrade.

Next Period

P821 – Light Rail Vehicles
- Continue warranty activities.
- Continue minor change order activities.

Other Systems
- Issue substantial completion to U860.
- Continue coordination of Agency initiated system network standardization.
- Continue manufacturing, staging and pre-installation activities for U826 Radio Console upgrade.

Closely Monitored Issues

- None to report this period.

P821 Cost Summary

Present Financial Status	Amount
P821 Manufacturer — Kinkisharyo Intl.*	
Original Contract Value (U-Link Option)	$94,576,095
Change Order Value	$4,598,480
Current Contract Value	$99,174,575
Total Actual Cost (Incurred To Date)	$98,643,296
% of Authorized Billed to-date	99.5%
Financial Percent Complete:	100%
Authorized Contingency	$4,608,904
Contingency Drawdown	$4,598,480
Contingency Index	N/A

**Change Order to Initial Segment LRV Contract*

C802 Cost Summary

Present Financial Status	Amount
C802 Train Control —GETS* Global Signaling, LLC	
Original Contract Value (U-Link Option)	$1,996,269
Change Order Value	$15,390
Current Contract Value	$2,011,659
Total Actual Cost (Incurred To Date)	$1,949,694
% of Authorized Billed to-date	98%
Physical Percent Complete:	~99%
Authorized Contingency	$103,731
Contingency Drawdown	$15,390
Contingency Index	N/A

**Change Order to Initial Segment Train Control Contract.*
55% of contract costs are assigned to U-Link 45% Northgate Link.

U830 Contract – *Track, Signal, Traction Power and Communications*

Current Progress

Notice to Proceed (NTP) was issued to the U830 Contractor end of this period. A baseline CPM schedule submittal is expected in January 2013.

Key Activities

Current Period

- Issued NTP to Stacy & Witbeck, Inc. (SWI) on Dec 10.
- Continued coordination meetings with CM Teams (U220/U250/U830 Contractors) to discuss access to the CHS and UWS for rail welding and distribution.
- Contractor provided a preliminary baseline schedule.
- U220, U230, U240 and U250 have responded to RFIs submitted by the U830 Contractor regarding remaining power, lighting, and ventilation by the tunneling contractors.
- *Trackwork:* Rail has been rolled. Qualification testing on high resilient fasteners has restarted based on the response to the RFIs submitted by the supplier. Vendor began design engineering on special trackwork.
- *Traction Power, Signal, Com/SCADA Systems:* Initiated weekly technical meeting with EC/CM on the construction schedule and interfaces with SWI.
- Traction Power vendor received Notice of Intent and initiated design work.

Next Period

- Prepare for mobilization.
- Hold a Quarterly Risk Mitigation meeting in January.
- Submit baseline schedule for review.
- Continue progress meetings and coordination meetings.

Closely Monitored Issues

- Floating Slab Concrete supplier has submitted a concrete mix; however, it does not meet the contract requirements. The designers have been asked to assists in the resolution of this issue.
- High Resilient Rail Fasteners – continue monitoring the qualification testing by supplier. New batch of fasteners has been made and qualification testing has started. Repeated load test is scheduled to be completed by January 12, 2013.
- Monitoring Licensing Agreement provided by ARINC.

Cost Summary

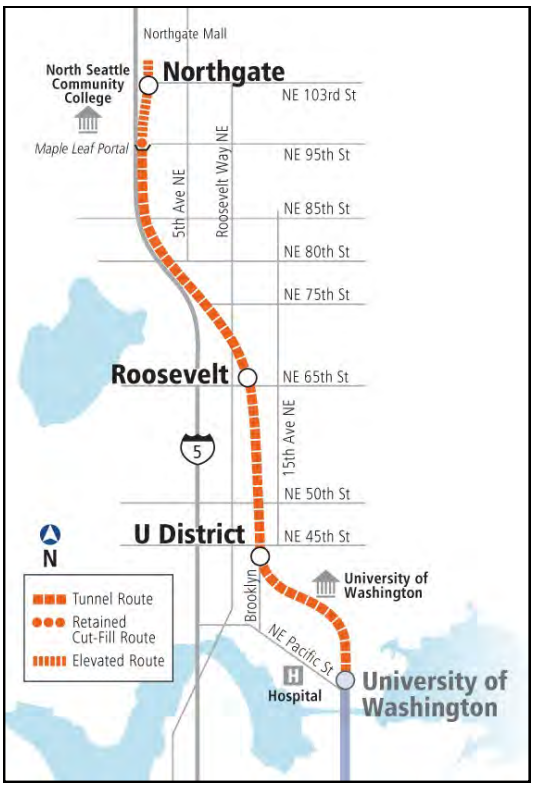
Present Financial Status	Amount
U830 GC/CM Contractor - Stacy & Witbeck, Inc.	
Original Contract Value	119,167,433
Change Order Value	0
Current Contract Value	119,167,433
Total Actual Cost (Amount Billed)	2,298,723
% of Authorized Billed to-date	2%
Physical Percent Complete:	2%
Authorized Contingency	5,958,373
Contingency Drawdown	$0
Contingency Index	N/A

Scope

The Northgate Link Extension consists of a 4.3-mile extension of light rail from the University of Washington Station to Northgate.

The project includes twin-bored tunnels from the underground University of Washington Station (UW Station) north to the underground U District Station near Brooklyn Avenue NE and NE 45th Street in the University District. From the U District Station, the twin-bored tunnels continue north to the underground Roosevelt Station near NE 65th Street and 12th Avenue NE to the tunnel portal north of the Lake City Way ramps in the I-5 right-of-way. The route then transitions to an aerial guideway north of NE 92nd Street and continues north where it terminates at an elevated station at Northgate Mall.

The Northgate Link Extension is in Final Design and early construction site preparation.



Map of Northgate Link Extension route and stations.

Key Project Activities/Issues

- Held N110 Bid Opening and Titan Earthworks was the low bidder. Approval from Capital Committee is scheduled for February 2013.
- Completed demolition of the QFC building at the Roosevelt Station site under the N112 contract.
- The Sound Transit Board approved the UW Property Transfer Agreement and the UW Board of Regents will consider the agreement in January 2013.
- Design consultant completed Contract N125 100% design package.
- Continued to work on designs for EMI & Vibration mitigation.
- Coordinated with SDOT & DPD regarding access and drop off areas for properties around the U District station construction site.
- Received appeals on the Roosevelt Noise Variance, U District Noise Variance, and the Master Use Permit that were approved by DPD. ST is reviewing the documents.
- Continued working on responses to the Contract N160 60% design review comments.
- Continued working with WSDOT on parking replacement plan at the Northgate Station, the Airspace Lease for the Maple Leaf Portal, and pavement monitoring for I-5 during tunneling.
- Continued working with SDOT on the station access improvement plans, and Master Bike Plan around the light rail stations.
- Continued working with King County Metro on wastewater discharge and settlement monitoring.
- ST Environmental staff worked on comments from SPU on Joint Aquatic Resource Permit Application (JARPA) related to side slope issues with work at south watercourse.

Project Cost Summary

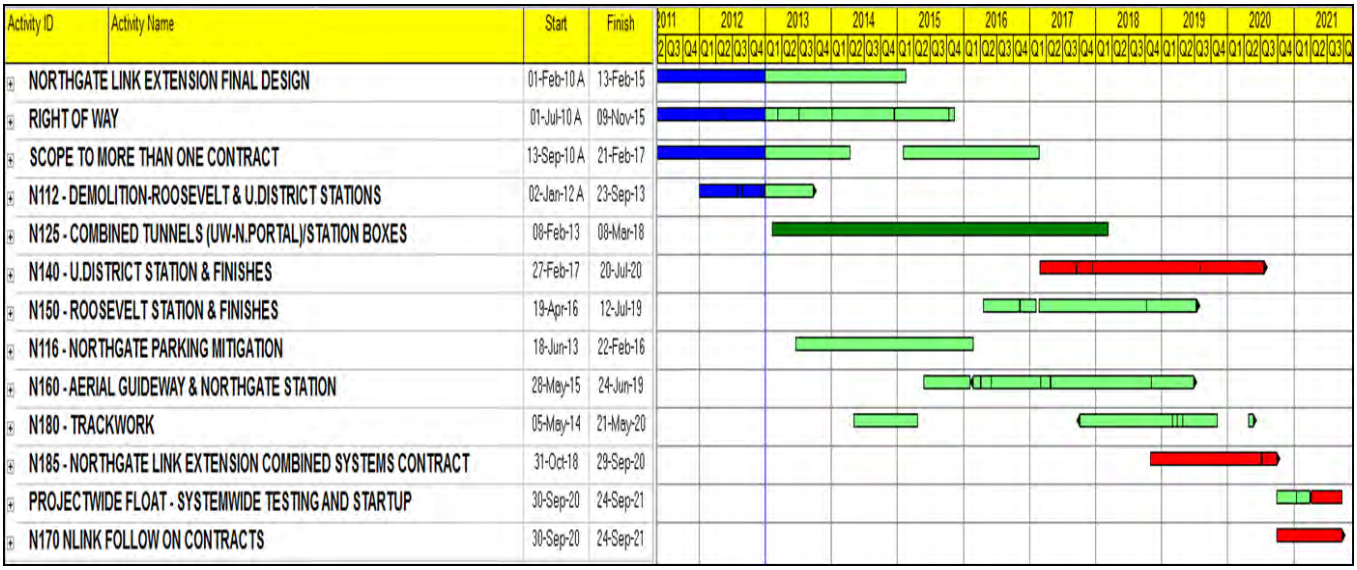
The baseline budget for the Northgate Link Extension is $2.1B. The following table (figures in millions) summarizes the cost information for the Project.

	Lifetime Budget	Commitment to Date	Incurred to Date*	Forecasts and Trends	Estimated Final Cost (EFC)	Budget vs. EFC
Administration	$149.5	$10.3	$11.9	$139.2	$149.5	$0.0
Preliminary Engineering	$15.1	$15.1	$15.1	$0.0	$15.1	$0.0
Final Design	$113.1	$95.7	$51.6	$17.4	$113.1	$0.0
Construction Services	$112.1	$75.5	$0.9	$36.6	$112.1	$0.0
3rd Party Agreements	$11.0	$2.7	$2.0	$8.3	$11.0	$0.0
Construction	$1,323.5	$13.5	$9.2	$1,310.0	$1,323.5	$0.0
Vehicles	$259.1	$0.0	$0.0	$259.1	$259.1	$0.0
ROW	$148.1	$49.2	$47.5	$98.8	$148.1	$0.0
Total	**$2,131.4**	**$262.0**	**$138.2**	**$1,869.4**	**$2,131.4**	**$0.0**

Project Schedule

The baseline schedule for the Northgate Link Extension establishes a Revenue Service date of September 2021.

Northgate Link Extension Final Design was extended to February 2015 to account for GC/CM approach of Station Finish contracts; there is no delay to overall project. Due to GC/CM methodology for N140 and N150, Final Design for those two contract packages was put on hold until procurement of GC/CM contractor was completed. Procurement will begin in January 2013. Procurement projected to complete 2nd QTR 2013 at which time Final Design will resume.


Activity ID
Activity Name
Start
Finish
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
NORTHGATE LINK EXTENSION FINAL DESIGN 01-Feb-10 A 13-Feb-15
RIGHT OF WAY 01-Jul-10 A 09-Nov-15
SCOPE TO MORE THAN ONE CONTRACT 13-Sep-10 A 21-Feb-17
N112 - DEMOLITION-ROOSEVELT & U.DISTRICT STATIONS 02-Jan-12 A 23-Sep-13
N125 - COMBINED TUNNELS (UW-N.PORTAL)/STATION BOXES 08-Feb-13 08-Mar-18
N140 - U.DISTRICT STATION & FINISHES 27-Feb-17 20-Jul-20
N150 - ROOSEVELT STATION & FINISHES 19-Apr-16 12-Jul-19
N116 - NORTHGATE PARKING MITIGATION 18-Jun-13 22-Feb-16
N160 - AERIAL GUIDEWAY & NORTHGATE STATION 28-May-15 24-Jun-19
N180 - TRACKWORK 05-May-14 21-May-20
N185 - NORTHGATE LINK EXTENSION COMBINED SYSTEMS CONTRACT 31-Oct-18 29-Sep-20
PROJECTWIDE FLOAT - SYSTEMWIDE TESTING AND STARTUP 30-Sep-20 24-Sep-21
N170 NLINK FOLLOW ON CONTRACTS 30-Sep-20 24-Sep-21

Right of Way

The U District and Roosevelt stations require the acquisition of a range of property interests including fee takings for stations and staging areas; tunnel easements are required for the running tunnel. These acquisitions will result in owner and tenant, residential and commercial relocations. In addition, property acquisition for the Roosevelt Station location involved the advanced acquisition of three parcels that the Sound Transit Board approved in June and October 2006. The right-of-way status as of this period is summarized in the following page.

Right of Way, continued

Line Section	Total Parcels Certified	Offers Made	Signed Agreements	Admin. Settlements	Possession and Use	Closings to date	Baseline Relocations Required	Relocations Completed
U District Station	16	15	1	0	0	4	3	1
Roosevelt Station	20	17	0	0	0	16	26	26
Tunnel Easements	190	179	18	0	0	105	0	0
Maple Leaf Portal	5	0	0	0	0	0	0	0
Total	**231**	**211**	**19**	**0**	**0**	**125**	**29**	**27**

U District Station – There are 16 parcels certified for the U District Station location. Sound Transit settled with the owner of two of the parcels by leasing the properties for the duration of the construction contract. All relocations are complete. An offer was made to University of Washington for two parcels and a settlement has been reached. Appraisals were completed on the remaining eleven parcels required for the Station and offers are being made.

Roosevelt Station – There are 20 parcels certified for the Roosevelt Station location. Offers has been made on 17 properties and 16 parcels have been acquired. All 26 relocations have been completed. On July 28, 2011 the Sound Transit Board authorized the acquisition of property rights from an additional eight parcels adjacent to the Roosevelt Station footprint. Civil has dropped one of those parcels from further consideration and three parcels are being tracked as "Tunnel Easements."

Northgate Link Tunnel Easements – In July 2010, the Sound Transit Board authorized the acquisition of a tunnel easement from the University of Washington. The offer for this easement was made in February 2011 and a settlement has been reached. Appraisals of an additional 116 tunnel easements between Husky Stadium and the Roosevelt Station are expected to be completed by August 2013. Offers have been made on all but two of these parcels and negotiations continue. On March 22, 2012, the Sound Transit Board authorized the acquisition of 57 tunnel easements and 10 utility easements between Roosevelt Station and Northgate Station. The appraisal process was completed in August 2012 for all except the utility easements. All tunnel easement offers (except for one) were made by the end of October. Agreement has been reached on tunnel easements with more than half of the owners. Three of the utility easement appraisals are completed and those offers have been made.

Community Outreach

- Distributed monthly e-newsletter to approx. 2,800 subscribers.
- Distributed construction alert regarding demo activities in the Roosevelt neighborhood.
- Attended NE District Community Council meeting to introduce the Outreach contacts for the station sites and discuss what to expect during construction.
- Met with Seattle Theatre Group, City of Seattle and ST staff to discuss event parking during construction and operation at the Neptune Theatre.
- Responded to public inquiries regarding approval of the Roosevelt Station nighttime noise variance.

Business Mitigation

- Worked on the U District Marketing Business Mitigation plan.

Sound Transit Board Actions

Motion No.	Description	Date
	None to report.	

Quality Assurance Activities

Activities

- N112: Reviewed and approved Contractor Construction Quality Plan.
- Reviewed and approved revision to the Jacob's Associates Northgate Extension Link Final Design Quality Manual and QC Checking Procedure.

Issues

- None to report.

Summary

Description	Dec 2012	Notes
No. of Audits Planned	0	None
No. of Audits Completed	0	None
Reports in Progress	3	N125 100% Design Submittal N160 60% Design Submittal, N830 60% Systems Design Submittal
No. of Audits Postponed	0	None

Final Design Overview

Sound Transit has executed two key contracts with professional services consultants for the Final Design of the Northgate Link Extension. Jacobs Associates (JA) is providing civil engineering and architectural final design services and was given NTP in October 2010. LTK Engineering Services (LTK) is providing systems engineering final design services and was given NTP in January 2011.

Final Design Activities

Contract Package N111 *–Advanced Electrical Utility Relocation and Northgate Station Site:*

- Continued 60% design effort.

Contract Package N125 - *Maple Leaf Portal to UW Station TBM Tunnels and Sub-grade Station Excavations:*

- Submitted 100% design package.
- Submitted U District and Roosevelt Stations, and Maple Leaf Portal preliminary drainage reports for submission to City.
- Commenced design for Weedin Place duct bank for electrical power supply to the Roosevelt construction site.
- Commenced Industry Review meetings to discuss the Contract N125 design with potential bidders.

Contract Package N140 - *U District Station Civil and Finishes*:

- Design effort on hold (at 60%) pending GC/CM procurement.

Contract Package N150 - *Roosevelt Station Civil and Finishes.*

- Design effort on hold (at 60%) pending GC/CM procurement.

Contract Package N160 - *Northgate Station and Aerial Guideway Civil and Finishes:*

- Continued development of responses to ST and third party comments on 60% design package.
- Developed schedule identifying key activities and 3rd Party coordination required to progress stormwater drainage design.
- Carried out traffic circulation assessment for Northgate Station site area.
- Continued design development of Maple Leaf Portal operational facilities
- Coordination of wetland and stream restoration work areas ongoing.
- Continued with conceptual studies/analysis of Northgate parking garage.

Contract Package N180 - *Trackwork*

- Continued responding to comments on 60% design package.
- Continued liaison with Systems design consultant (LTK) on special Trackwork configurations.
- Commenced development of 16 Hz floating slab design.

Contract Package N830 – Traction Electrification, Signals, and Communications:

- Submitted the 60% Design Package.
- Provided analysis of potential EMI impacts due to heavy aggregates proposed for use in the 5 Hz floating slab under the UW campus.
- Continued coordination with the Civil design team.

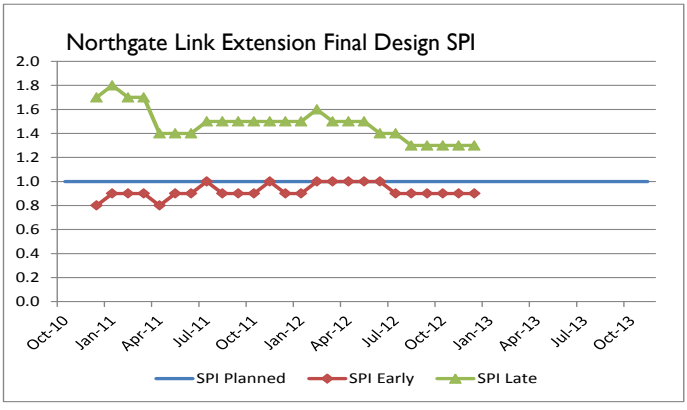
Final Design Schedule

Work Packages	60%		90%		100% to ST	
	Plan	F/A*	Plan	F/A*	Plan	F/A*
N111 Advanced Utility Relocation - Northgate	11/30/2012	12/21/2012	3/29/2013	3/29/2013	7/12/2013	6/28/2013
N125 TBM Tunnels	N/A	N/A	9/6/2012	9/7/2012A	12/10/2012	12/10/2012
N140 U District Station Finishes	12/24/2011	4/27/2012	9/18/2012	7/1/2014	5/10/2013	3/25/2015
N150 Roosevelt Station Finishes	4/13/2012	2/27/2012	1/28/2013	4/1/2014	10/23/2013	12/24/2014
N160 Northgate Sta. Civil/Finishes/Guideway	6/27/2012	10/5/2012	4/17/2013	6/7/2013	11/26/2013	11/27/2013
N180 Trackwork	8/23/2012	8/23/2012	5/22/2013	3/23/2013	8/26/2013	8/9/2013
N830 Traction Electrification. Signals, Comm.	12/12/2012	12/20/2012A	4/10/2014	8/1/2014	12/9/2014	4/15/2015

F/A* = Forecast/Actual

Final Design Schedule Performance

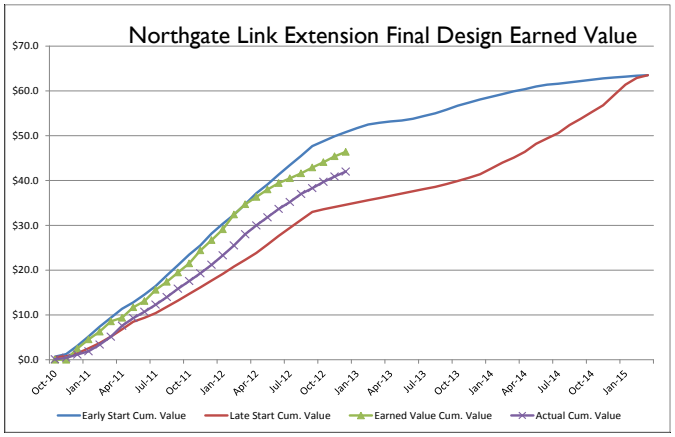
Excluding DSDC, the Schedule Performance Index (SPI) reported this period is 0.9 based on the early start dates. The design consultant is meeting all of their design deliverable milestones. Additionally, the late start SPI is 1.3.



Final Design Cost Performance

JA has submitted 27 progress payments to date in the total amount of $42.0M, which is approximately 51% of the total contract amount. Excluding DSDC, the percent spent for Final Design activities is 66%.

Excluding DSDC, the percent spent for Final Design activities is 66%. Excluding DSDC, the percent complete reported at the end of this period is approximately 73%, resulting in an earned value of $46.4M. The cumulative Cost Performance Index (CPI) is currently 1.1, which means the expenditures are lower than the earned value. Based on the current CPI trend, final cost would be within or under budget.



Performance	Previous Period	Current Period	Cumulative To Date
Amount Invoiced	$40,866,734	$1,141,386	$42,008,120
% Spent	64.4%	1.8%	66.2%
Earned Value	$45,412,351	$988,994	$46,401,345
% Complete	71.5%	1.6%	73.1%
CPI	1.1	0.9	1.1

Other Key Final Design Activities

Design and Project Integration

- Continued bi-weekly design integration meetings and contract specific coordination meetings for active contracts.
- Integration Control Document (ICD) Log: Four new ICDs were raised, 62 ICDs closed and 38 are open.

Geotechnical Investigation & Surveying

- Continued geotechnical exploration program: Completed boring and test pits in the WSDOT wetlands area. This completed the original geotechnical exploration program.
- Geotechnical data analysis and development of geotechnical report, including updated reporting to address ST and third party comments continued. Submitted Geotechnical Considerations Report (GCR) for U District DPD submittal.
- Contract N125 Geotechnical Baseline Report (GBR) was completed and submitted to ST with the 100% design package.
- Updated ROW Plan and Survey Control Plans for Contracts N111, N125, and N160.
- Completed field survey work at Weedin Place and updated Project basemap and survey tiles.
- Completed revisions to WSDOT Airspace Lease Exhibits.

Traffic Engineering

- Continued traffic engineering support for Maintenance of Traffic efforts and Final Design traffic elements on Contract N125 and N160.

Permitting and Noise Monitoring

- Assisted with response to U District demolition MUP appeal.
- Provided coordination on Contract N160 wetland permitting.
- Submitted ROD matrix for Contract N160 60% design package.
- Started development of ROD matrix for Contract N125 100% design package.
- Responded to additional comments on project changes in revised JARPA permit application.
- Continued SEPA addenda for 115 kV transmission line relocation at Northgate.
- Construction Noise Variances: Continued support for MPPCV applications for U District and Roosevelt Station sites and Maple Leaf Portal.
- Noise Mitigation for At-Grade and Elevated Guideways: Responded to comments for Maple Leaf Portal and Aerial Guideway.
- Ground Borne Noise and Vibration: Developed a draft report for the off-campus construction noise and vibration impacts and mitigation.

Construction Cost Estimating & Scheduling

- Prepared civil works construction cost estimate for Contract N105 Key Bank Site Demo and Site Remediation.
- Submitted Contract N125 100% construction cost estimate.
- Submitted revised overall construction schedule to reflect revised TBM advance rates, Roosevelt Station excavation, and cross passage construction logic and sequence.

Quality Assurance

- Completed QA Audit for Contract N125 100% design package, and started preparation of QA Audit Report.

Major Construction Contract Packages

Construction of the Northgate Link Extension consists of eight major construction contract packages: seven civil packages and one combined systems package. Below is a brief scope description for each of these contract packages:

N110 Utility Relocation at Roosevelt Station Area - The contract includes relocation of electrical and communication facilities at the Roosevelt Station site.

N111 Utility Relocation at Maple Leaf Portal and Northgate Station Area– The contract includes the relocation of electrical facilities at the Maple Leaf Portal and Northgate Station Areas.

N112 U District and Roosevelt Station Site Preparation - The contract includes the demolition of existing structures, grading and paving at the U District and Roosevelt Station sites.

N125 TBM Tunnels UW Station to Maple Leaf Portal - The contract includes all tunneling work for the project. In addition, this contract provides the support of excavation of station boxes work for the U District and Roosevelt stations.

N140 U District Station Finishes - The contract provides the civil and architectural finishes work for the U District Station.

N150 Roosevelt Station Finishes– The contract provides the civil and architectural finishes work for the Roosevelt Station.

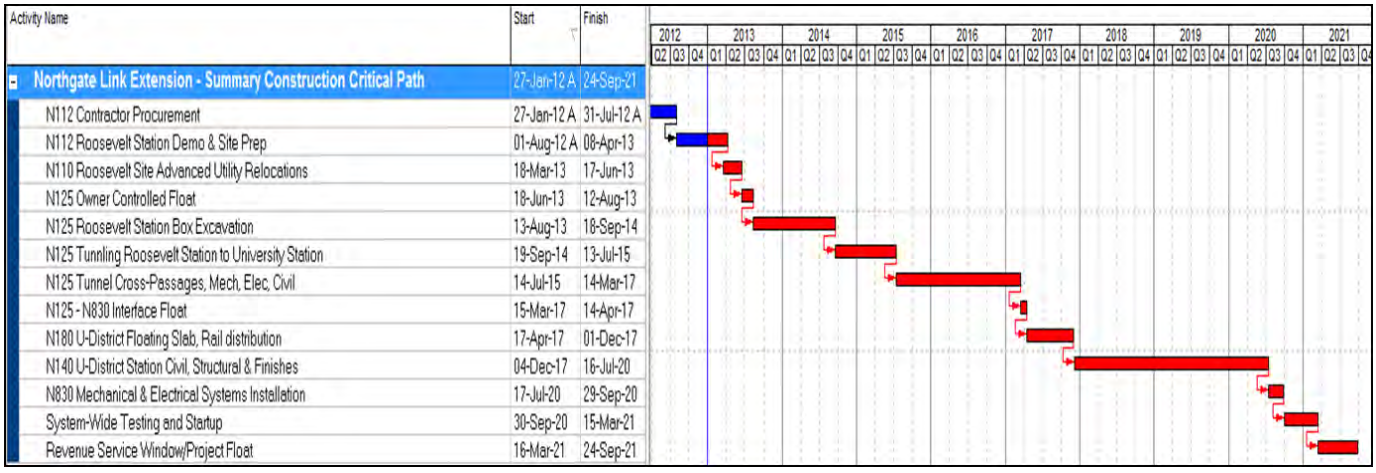
N160 Northgate Station & Elevated Guideway - The contract includes the civil and architectural finishes work for the Maple Leaf Portal, the aerial guideway, and the Northgate Station through Tail Track.

N830 Track Electrification, Signals, Communication System, and Track – The contract includes the installation of the major system elements – Traction Electrification, 26kV Distribution, Signals, and Communications and all Trackwork.

Construction Schedule Highlights

Package	Bid Advertisement	NTP	Substantial Completion
N110 – Utility Relo at Roosevelt Station	Dec 2012	Mar 2013	Jul 2013
N111 – Utility Relo at Northgate Area	Jul-Aug 2013	Jan 2014	Dec 2014
N112 – U District & Roosevelt Site Prep	Feb 2012 A	Aug 2012 A	Sep 2013
N125 – TBM Tunnels	Mar 2013	Aug 2013	Mar 2018
N140 – U District Station Finishes	Feb 2013 (GC/CM-Precon)	Dec 2017 (construction)	Jul 2020
N150 – Roosevelt Station Finishes	Apr 2013 (GC/CM– Precon)	Dec 2016 (construction)	Jul 2019
N160 – Northgate Station & Guideway	May 2015	Feb 2016	Jun 2019
N180– Floating Slab & Trackwork	May 2014	Apr 2017– (construction)	May 2019
N830 – Systems & Track	May-Jun 2014 (GC/CM)	Dec 2018 (construction)	Oct 2020

Construction Critical Path Schedule


Activity Name
Start
Finish
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Northgate Link Extension - Summary Construction Critical Path 27-Jan-12 A 24-Sep-21
N112 Contractor Procurement 27-Jan-12 A 31-Jul-12 A
N112 Roosevelt Station Demo & Site Prep 01-Aug-12 A 08-Apr-13
N110 Roosevelt Site Advanced Utility Relocations 18-Mar-13 17-Jun-13
N125 Owner Controlled Float 18-Jun-13 12-Aug-13
N125 Roosevelt Station Box Excavation 13-Aug-13 18-Sep-14
N125 Tunnling Roosevelt Station to University Station 19-Sep-14 13-Jul-15
N125 Tunnel Cross-Passages, Mech, Elec, Civil 14-Jul-15 14-Mar-17
N125 - N830 Interface Float 15-Mar-17 14-Apr-17
N180 U-District Floating Slab, Rail distribution 17-Apr-17 01-Dec-17
N140 U-District Station Civil, Structural & Finishes 04-Dec-17 16-Jul-20
N830 Mechanical & Electrical Systems Installation 17-Jul-20 29-Sep-20
System-Wide Testing and Startup 30-Sep-20 15-Mar-21
Revenue Service Window/Project Float 16-Mar-21 24-Sep-21

Contract N112 - U District and Roosevelt Station Site Preparations

Current Progress

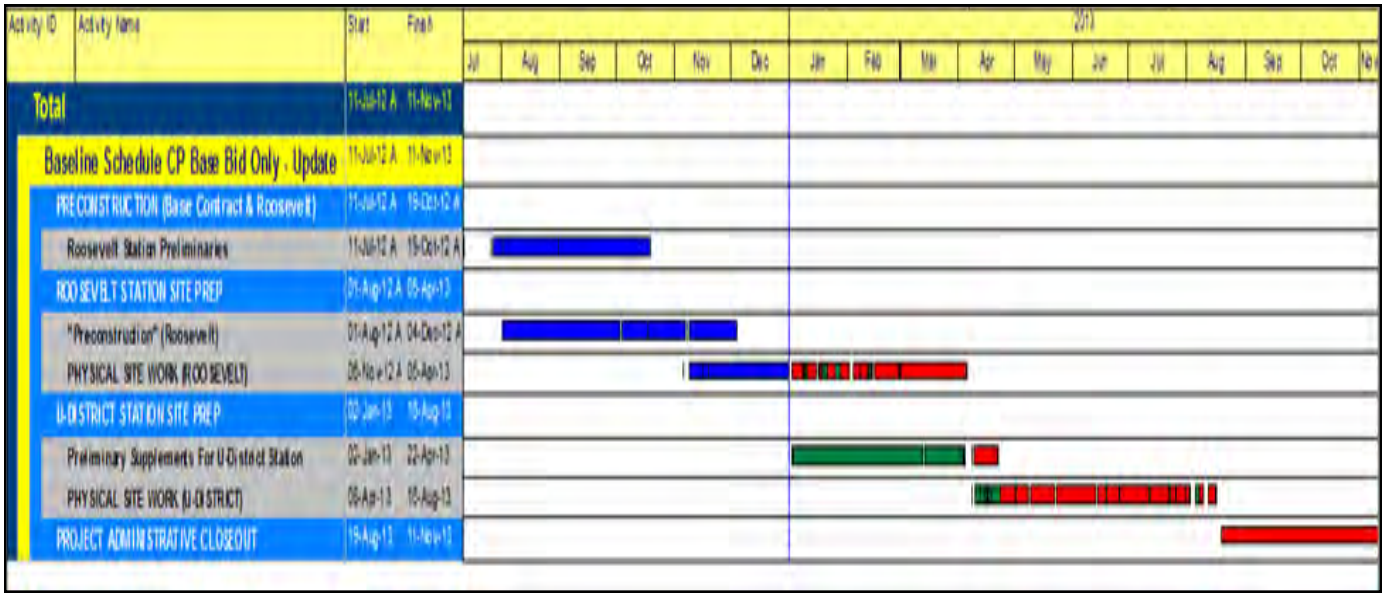
The N112 Contractor (Titan) slowed down much of its work during the holidays but still made good progress. Titan completed the last of its mobilization, initial rodent control, demolition of QFC super structure and basement backfill, plus soil nails on North and East walls. They moved ahead on utility disconnects/demo for the cluster site.

The work of the past two months has prepared Titan for major effort scheduled for January. Preliminaries and demolition will move forward with QFC, house in the corner, commercial plus the cluster buildings. Plans are to remove the Needles building underground tank as well as more embankment and site grading. In addition, Titan is scheduled to begin the advanced planning and submittal preparations for the U District site.

Schedule /Critical Path

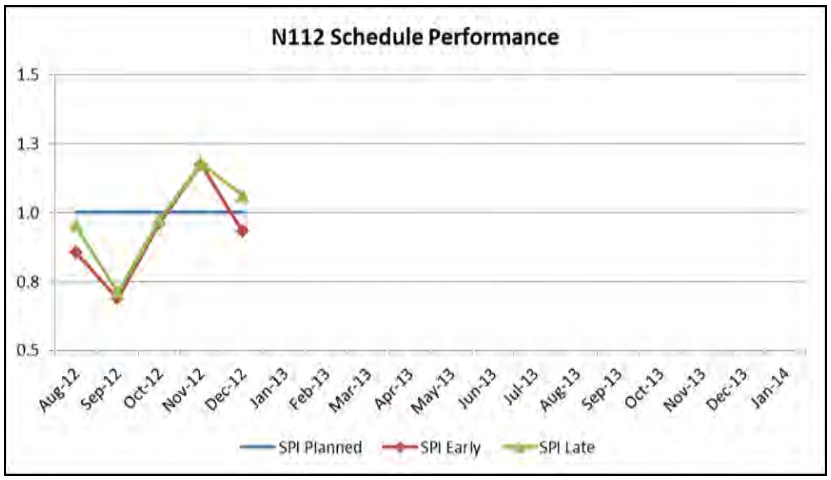
As noted last period, because the work takes place on two different sites there are two different critical paths. The first path includes the demolition and regrading of the Roosevelt Station site. Even within that site there are different areas of demolition and regrading. Titan has arranged its work so that the many sequential steps for each area are in parallel but staggered so that demolition steps A at one site precedes step B at that site and, at the same time, becomes step A at a neighboring site.

The other critical path – for the U District Site – is similar but constrained by receipt of the City of Seattle MUP. In anticipation of timely receipt of the permits, Titan is scheduled to begin the first step of the U District Critical Path. That step is scheduled to begin in January with preparation for submittals in order to be ready to start physical work on site as soon as the site is released for construction.



Schedule Performance Index

The N112 Schedule Performance Index (SPI) this period is 0.9. With December earnings, the cumulative line is slightly below the original budget. The project site curtailed work in December during the holidays. As a result, some work was rescheduled to January 2013. The temporary slip to the SPI is the result of working one week less in December. However, the January schedule is expected to neutralize the effect of the holidays and thus, expect the SPI to improve.



Key Activities

Current Period

- Completed abatement at 65th Street cluster buildings.
- Completed mobilization with base TESC/tree protection.
- Continued utility disconnections/demo prep (cluster site).
- Demolished QFC and removed debris.
- Cleared out QFC basement and filled it with CDF.
- Installed and stressed soil nails on the north and east wall of QFC.
- Completed preconstruction (Roosevelt).
- Continued review of re-submittals and monitoring reports for settlement, noise and vibration.
- Responded to community issues.
- Pumped water out of the Chase Garage.

Next Period

- Finish Utility disconnections/demo prep (cluster site)
- Demolition of QFC slab.
- Demo of 65th Street commercial buildings and house on 12th Street.
- Begin site work on condo property: grading/storm line.
- Remove underground storage tank under the Needles building.
- Begin environmental and permit submittals for U District site.
- Continue Roosevelt site demolition, grading, and paving.

Closely Monitored Issues

- Noise Permit has been appealed and will go to a hearing in January.
- Removal of the underground storage tank.

Cost Summary

Present Financial Status	Amount
N112 Contractor - Titan Earthwork	
Original Contract Value	$ 4,444,444.44
Change Order Value	$ -
Current Contract Value	$ 4,444,444.44
Total Actual Cost (Amount Billed)	$ 1,365,000.00
% of Authorized Billed to-date	31%
Physical Percent Complete:	37%
Authorized Contingency	$ 444,444.56
Contingency Drawdown	$ -
Contingency Index	N/A

QFC basement being filled with CDF.

Link Light Rail
Lynnwood Link Extension

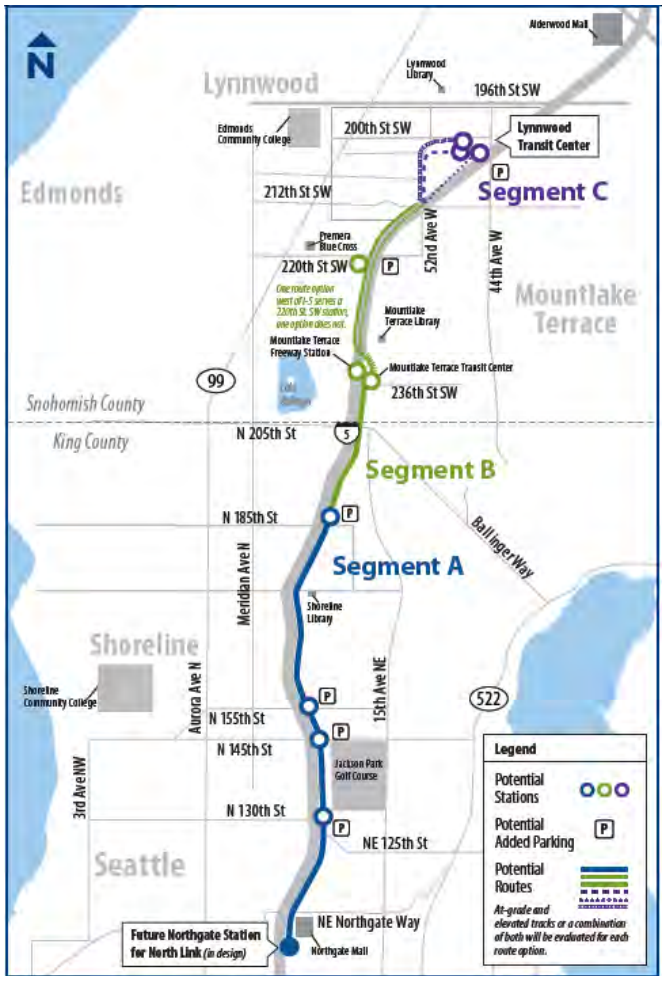
Scope

The Lynnwood Link Extension entails planning, permitting, design, and construction of an extension of light rail from Northgate to Lynnwood in Snohomish County with service in the cities of Shoreline and Mountlake Terrace. Consistent with FTA New Starts requirements, the project has undergone an alternative analysis, completed in the 3rd QTR 2011, and Environmental Scoping, completed in the 4th Quarter 2011. The development of the draft environmental impact statement (DEIS) and conceptual engineering of the DEIS alternatives started in January 2012. The Sound Transit Board identified the route and station alternatives to study in the DEIS in April 2012.

The Lynnwood Link Extension is in Conceptual Engineering Phase.

Key Project Activities/Issues

- Continued working on DEIS for Q2 2013 publication.



Map of Lynnwood Link Extension route and station alternatives.

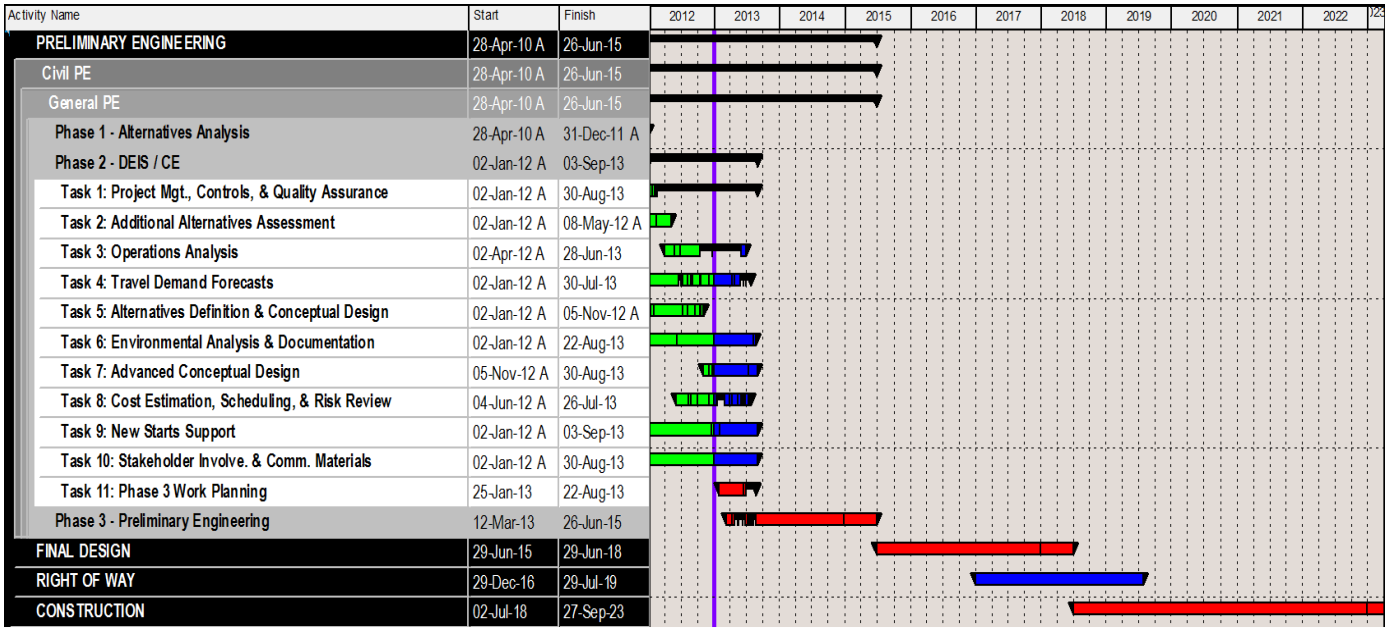
Project Cost Summary

The Lynnwood Link Extension is currently funded through the completion of preliminary engineering (PE) and environmental documentation. Board approval for additional funding for final design and construction will be sought upon completion of PE. Table (below) figures in millions.

Phase	Adopted Budget	Commitment to Date	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Budget Versus EFC
Administration	$10.7	$2.0	$2.3	$8.8	$10.7	$0.0
Preliminary Engineering	$44.3	$19.1	$12.1	$25.2	$44.3	$0.0
3rd Party Agreements	$1.0	$0.3	$0.0	$0.7	$1.0	$0.0
Right of Way	$1.1	$0.1	$0.0	$1.0	$1.1	$0.0
Total	**$57.1**	**$21.4**	**$14.5**	**$35.7**	**$57.1**	**$0.0**

Project Schedule

The Lynnwood Link Extension, environmental documentation and preliminary engineering is anticipated to be completed in 2015. The project schedule is presented below.


Activity Name
Start
Finish
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
PRELIMINARY ENGINEERING 28-Apr-10 A 26-Jun-15
Civil PE 28-Apr-10 A 26-Jun-15
General PE 28-Apr-10 A 26-Jun-15
Phase 1 - Alternatives Analysis 28-Apr-10 A 31-Dec-11 A
Phase 2 - DEIS / CE 02-Jan-12 A 03-Sep-13
Task 1: Project Mgt., Controls, & Quality Assurance 02-Jan-12 A 30-Aug-13
Task 2: Additional Alternatives Assessment 02-Jan-12 A 08-May-12 A
Task 3: Operations Analysis 02-Apr-12 A 28-Jun-13
Task 4: Travel Demand Forecasts 02-Jan-12 A 30-Jul-13
Task 5: Alternatives Definition & Conceptual Design 02-Jan-12 A 05-Nov-12 A
Task 6: Environmental Analysis & Documentation 02-Jan-12 A 22-Aug-13
Task 7: Advanced Conceptual Design 05-Nov-12 A 30-Aug-13
Task 8: Cost Estimation, Scheduling, & Risk Review 04-Jun-12 A 26-Jul-13
Task 9: New Starts Support 02-Jan-12 A 03-Sep-13
Task 10: Stakeholder Involve. & Comm. Materials 02-Jan-12 A 30-Aug-13
Task 11: Phase 3 Work Planning 25-Jan-13 22-Aug-13
Phase 3 - Preliminary Engineering 12-Mar-13 26-Jun-15
FINAL DESIGN 29-Jun-15 29-Jun-18
RIGHT OF WAY 29-Dec-16 29-Jul-19
CONSTRUCTION 02-Jul-18 27-Sep-23

Sound Transit Board Actions

Motion Number	Description	Date
	None to report this period.	

Community Outreach

- Briefed Briarcrest Neighborhood Association and Pinehurst Community Council regarding the project and attendees were encouraged to be ready for the DEIS and public comment period this summer.
- Community information displays were installed at the first three community locations this week in north Seattle (Bitter Lake Community Center), Mountlake Terrace (Mountlake Terrace Recreation Pavilion) and Lynnwood (Lynnwood library). The information kiosks will change locations periodically. Environmental Justice and non-English speaking populations are also targeted. Over 40 locations will receive the posters.

Phase 2 - Conceptual Engineering and DEIS Overview

Sound Transit executed a professional services agreement with North Corridor Transit Partners (NCTP) for civil engineering and architectural design services in April 2010. Sound Transit issued NTP for Phase 2, Conceptual Engineering and DEIS for the Lynnwood Link Extension in January 2012.

Key Phase 2 Activities

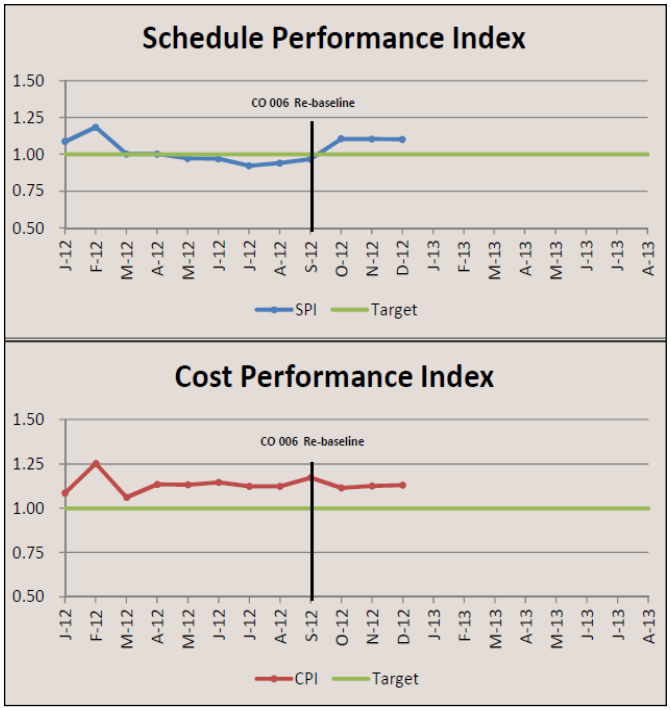
- Continued forecast model update, analysis, and documentation activities.
- Continued work on draft EIS sections, Section 106 coordination, visual simulations, and impact avoidance options.
- Further developed advanced conceptual design, including alternative station and bridge options, changes to existing infrastructure, and tech memo development.
- Developing DEIS Capital Cost Estimates for all alternatives.
- Prepared graphic materials for stakeholder meetings and coordinating with local jurisdictions.

Phase 2 Schedule Performance

Change Order 006 was executed in October, addressing changes to the FTA's New Starts approval process. This change order reduced the Phase 2 schedule by 4 months and re-scoped deliverables, triggering a revision to the performance management baseline. The Schedule Performance Index (SPI) trends at 1.10 through December against the revised baseline. All Phase 2 design deliverable milestones have been met and the critical path is on schedule.

Phase 2 Cost Performance

$11.6M of the total contract amount, approximately 65%, has been spent through December. Phase 2 invoices through December total $6.9M, approximately 52% of the phase 2 contract amount. The phase 2 percent complete reported at the end of December is 59%, resulting in an earned value of $7.8M. The cumulative Cost Performance Index (CPI) is 1.13, which means that the expenditures are lower than the earned value. Based on the current trend, final cost is expected to be within or under budget.



Phase 2 Performance	Previous Period	Current Period	Cumulative To-date
Amount Invoiced	$6,742,199	$430,431	$6,902,631
% Spent	49%	3%	52%
Earned Value	$7,291,462	$521,042	$7,812,504
% Complete	55%	4%	59%
CPI	1.10	1.08	1.10
SPI	1.13	1.00	1.13

Scope

East Link extends light rail to East King County via I-90 from Downtown Seattle to Downtown Bellevue and the Overlake area of Redmond, with stations serving Rainier Avenue/I-90, Mercer Island, South Bellevue, Downtown Bellevue, Overlake Hospital, the Bel-Red corridor, Overlake Village and the Overlake Transit Center (OTC). Environmental review for a future expansion between the Overlake Transit Center and Downtown Redmond is also being completed. Preliminary engineering has been completed; the project is in Final Design. Revenue Service to the Overlake Transit Center is forecast for early 2023.

East Link Extension is in Final Design.

Key Project Activities/Issues

I-90

- The Track Bridge 90% design submittal was reviewed; full scale testing at UW was completed.
- PB's Track Bridge Final Basis of Design Report was submitted and reviewed; comments were provided.
- Work Plans for the Seismic Retrofits for Fixed Spans and Floating Bridge Structural Analysis were submitted to WSDOT; the Draft Basis of Design is under review.
- On-going work continues regarding Third Party Agreements with Utility Providers; scopes were submitted to Seattle City Light for TPSS (2) and Rainier Avenue Station.
- Drafts of the Contract Packaging Plan, Project Management Plan w/Risk Management Plan, Progress Schedule and Earned Value Management Plan were submitted by the consultant and are under review.

Bellevue-Redmond

- The Bellevue Transit Center/NE 6th Station Workshop was held on December 11th.
- Met with City of Bellevue staff to discuss Track Treatment Alternatives.
- SEM analysis began for the downtown Bellevue tunnel.
- A new alignment was developed between 120th and 130th stations to avoid the Kelsey Creek wetland.
- Continued working w/City of Redmond staff to develop scope concurrence (PREP) process, Site Entitlement Permit (SPE) process, design-build delivery and other processes.
- Met with City of Redmond staff to discuss transferring the grant for the pedestrian bridge at Overlake Village Station from Redmond to ST. This transfer will obligate funds and allow design work to be invoiced.
- An Independent Cost Estimate was developed for Design Services for Overlake Transit Center Station Microsoft Betterments.
- Work has started on property acquisitions for E-360.

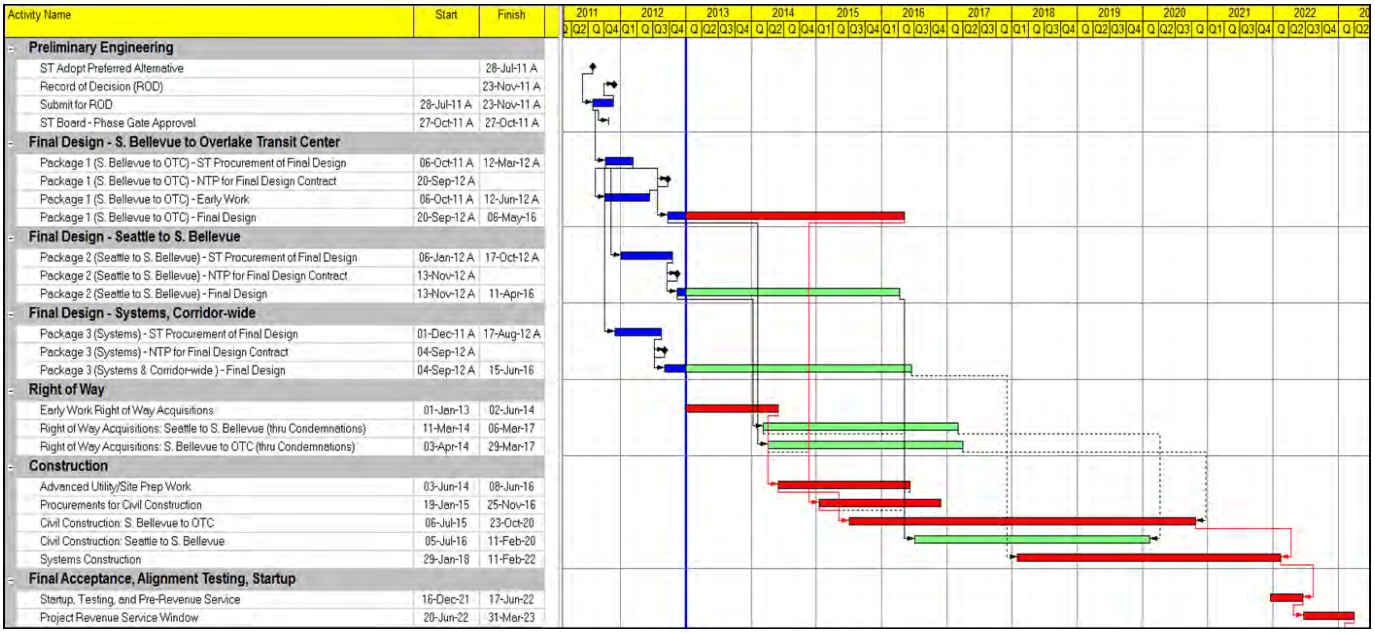
Project Cost Summary

The following table summarizes the cost information for the East Link Program. Lifetime Budget reflects the project budget adopted by Sound Transit Board, which includes budget to complete Final Design. (Figures in millions.)

	Lifetime Budget	Commit-ment to Date	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Budget vs. EFC
Administration	$66.5	$13.1	$12.9	$53.4	$66.5	$0.0
Preliminary Engineering	$61.1	$54.1	$53.2	$7.0	$61.1	$0.0
Final Design	$223.7	$133.0	$8.7	$90.7	$223.7	$0.0
3rd Party Agreements	$40.1	$3.6	$1.3	$36.4	$40.1	$0.0
Right-of-way	$365.4	$15.7	$14.6	$349.7	$365.4	$0.0
Total	**$756.8**	**$219.6**	**$90.7**	**$537.2**	**$756.8**	**$0.0**

Project Schedule

The East Link Program is in Final Design (see schedule below). Revenue Service to the Overlake Transit Center is forecast for 2023. The Final Design for S. Bellevue to Overlake Transit Center NTP was given on September 20, 2012. Final Design for Corridor-wide Systems NTP was given on September 4, 2012.



Activity Name	Start	Finish
Preliminary Engineering		
ST Adopt Preferred Alternative		28-Jul-11 A
Record of Decision (ROD)		23-Nov-11 A
Submit for ROD	28-Jul-11 A	23-Nov-11 A
ST Board - Phase Gate Approval	27-Oct-11 A	27-Oct-11 A
Final Design - S. Bellevue to Overlake Transit Center		
Package 1 (S. Bellevue to OTC) - ST Procurement of Final Design	06-Oct-11 A	12-Mar-12 A
Package 1 (S. Bellevue to OTC) - NTP for Final Design Contract	20-Sep-12 A	
Package 1 (S. Bellevue to OTC) - Early Work	06-Oct-11 A	12-Jun-12 A
Package 1 (S. Bellevue to OTC) - Final Design	20-Sep-12 A	06-May-16
Final Design - Seattle to S. Bellevue		
Package 2 (Seattle to S. Bellevue) - ST Procurement of Final Design	06-Jan-12 A	17-Oct-12 A
Package 2 (Seattle to S. Bellevue) - NTP for Final Design Contract	13-Nov-12 A	
Package 2 (Seattle to S. Bellevue) - Final Design	13-Nov-12 A	11-Apr-16
Final Design - Systems, Corridor-wide		
Package 3 (Systems) - ST Procurement of Final Design	01-Dec-11 A	17-Aug-12 A
Package 3 (Systems) - NTP for Final Design Contract	04-Sep-12 A	
Package 3 (Systems & Corridor-wide) - Final Design	04-Sep-12 A	15-Jun-16
Right of Way		
Early Work Right of Way Acquisitions	01-Jan-13	02-Jun-14
Right of Way Acquisitions: Seattle to S. Bellevue (thru Condemnations)	11-Mar-14	06-Mar-17
Right of Way Acquisitions: S. Bellevue to OTC (thru Condemnations)	03-Apr-14	29-Mar-17
Construction		
Advanced Utility/Site Prep Work	03-Jun-14	08-Jun-16
Procurements for Civil Construction	19-Jan-15	25-Nov-16
Civil Construction: S. Bellevue to OTC	06-Jul-15	23-Oct-20
Civil Construction: Seattle to S. Bellevue	05-Jul-16	11-Feb-20
Systems Construction	29-Jan-18	11-Feb-22
Final Acceptance, Alignment Testing, Startup		
Startup, Testing, and Pre-Revenue Service	16-Dec-21	17-Jun-22
Project Revenue Service Window	20-Jun-22	31-Mar-23

Community Outreach

- Notified businesses/residents of upcoming geotech work in affected areas of Bellevue and Bel-Red.
- Began discussions with King county & WSDOT regarding the schedule for upcoming geotech work at the South Bellevue Park and Ride.
- Responded to questions and concerns about field work, particularly around Enatai and the BNSF corridor.
- Met with City of Redmond staff and established initial process for collaborative outreach work.
- Corresponded with Jackson Place Community Council on futurue1-90/Rainier Station.
- Notified City of Bellevue, King County Metro and WSDOT of upcoming survey work on Bellevue Way, the Winters House, and the South Bellevue P&R.

Final Design Scope

Final Design for the East Link Extension Project is delivered by three design contracts: two for civil improvements and one for systems improvements. This civil contract is for the design services from South Bellevue to the Overlake Transit Center (OTC). The contract was awarded to H-J-H Final Design Partners, a joint venture of HNTB Corporation, Jacobs Engineering Group, Inc., and Hatch Mott MacDonald.

The scope of services include detail design of the corridor, preparation of comprehensive construction contract documents, permit support, survey, geotech investigations, right-of-way planning, third party coordination, systems coordination, cost estimating, scheduling, sustainability report, bid support and community outreach.

The project in this segment has been grouped into four Contract Packages: (1) E320 So. Bellevue: I-90 to Main Street; (2) E330 Downtown Bellevue: Tunnel to BNSF Touchdown; (3) E340 Bel-Red: BNSF Touchdown to SR -520, and (4) E360 SR-520 to OTC.

Final Design Key Activities

- Continued development of the final design baseline schedule.
- Continued geotechnical exploration and coordination.
- Continued field surveying and basemapping.
- Started the permitting process for critical areas within parks and other areas.
- Continued preparing preliminary draft specifications sections list.
- Prepared final Design Quality Management Plan for submittal to Sound Transit.
- Continued examination and feasibility study of the Low Impact Development Stormwater options.
- Continued development of the Baseline Configuration Drawing Set, preparing the drawing content, plan, and profile information.
- Refined and optimized light rail profiles, evaluating lateral and vertical clearances, track type, and the system drainage patterns.
- Prepared summary for optimization of aerial structures and selected aerial structure type per package.
- Developed concepts for tub girders through aerial stations.
- Studied alternative alignment from I-90 over Bellevue Way to reduce number of straddle bents.
- Continued implementation of CAD standards, and established CAD file management and file organization.
- Continued advancing Stations design.
- Conducted the first Sustainability Workshop.

Final Design Preliminary Schedule

Contract Packages	60% Submittal		90% Submittal		100% Submittal		IFB Submittal	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual
E320 So. Bellevue: I-90 to Main St.	9/30/2013	N/A	7/2/2014	N/A	11/18/2014	N/A	2/27/2015	N/A
E330 Downtown Bellevue: Tunnel to BNSF Touchdown	8/21/2013	N/A	5/27/2014	N/A	10/8/2014	N/A	1/15/2015	N/A
E340 Bel-Red: BNSF Touchdown to SR-520	7/15/2013	N/A	4/16/2014	N/A	9/3/2014	N/A	12/15/2014	N/A
E360 SR-520 to Overlake Transit Center	11/1/2013	N/A	6/30/2014	N/A	11/5/2014	N/A	3/4/2015	N/A

CPM Schedule and Cost Performance Indices are not available at this time.

Project Summary

Scope: The amended FFGA Initial Segment/Airport Link project is a 15.6-mile double-tracked line with 13 stations connecting downtown Seattle with Sea-Tac International Airport, with a fleet of 35 low-floor articulated 90 to 95-foot cars, and an Operations and Maintenance Facility.

Budget: $2.697 billion (capital subtotal of $2.362 billion)

Schedule: Interim completion was July 2009 and final completion was December 2009.

Project Cost Summary

The "Estimated Final Cost" (EFC) represents the current estimate of final cost for the Initial Segment/Airport Link project and is updated quarterly.

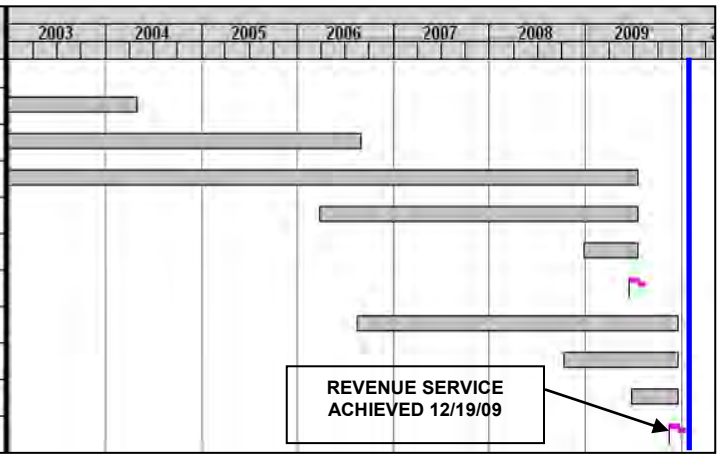
Project Element	Lifetime Budget	Commitment to Date	Incurred to Date	Est. Final Cost (EFC)	Adopted Budget vs. EFC
Administration	$196.7	$195.3	$195.6	$196.0	$0.6
Preliminary Engineering	$37.0	$36.9	$36.9	$36.9	$0.0
Final Design	$160.0	$159.7	$159.7	$159.8	$0.1
Construction Services	$118.3	$117.9	$117.4	$117.6	$0.6
3rd Party Agreements	$62.9	$63.1	$62.4	$62.4	$0.4
Construction	$1,421.9	$1,412.6	$1,409.8	$1,412.6	$9.3
Vehicles	$146.4	$146.3	$146.3	$146.3	$0.1
Right of Way	$219.1	$221.2	$221.5	$221.6	$(2.5)
Capital Total	**$2,362.1**	**$2,353**	**$2,350**	**$2,353**	**$9**
Project Reserve	$96.1	$0.0	$0.0	$0.0	$96.1
Financing	$201.8	$201.8	$176.0	$176.0	$25.8
Transit Art	$10.7	$8.4	$8.2	$8.4	$2.4
DSTT Debt Service	$26.1	$23.7	$23.7	$23.7	$2.4
Project Total	**$2,696.8**	**$2,587.0**	**$2,557.5**	**$2,561.4**	**$135.4**

Table figures in millions. Financials as of December 2012.

Project Schedule Summary

Schedule for the amended Initial Segment/Airport Link project is summarized below.

Activity Description	Early Start	Early Finish
Initial Segment/Airport Link		
Final Design (Initial Segment)	04/17/00A	04/29/04A
Final Design (Airport Link)	12/03/01A	08/31/06A
IS Civil Construction(to Substantial Completion)	08/13/02A	07/17/09A
IS Systems Construction(to Substantial Complete)	03/27/06A	07/17/09A
IS Systemwide Testing/Pre-Revenue Service	12/26/08A	07/18/09A
Initial Segment Revenue Service Date		07/18/09A
Airport Link Civil Construction	08/17/06A	12/18/09
Airport Link Systems Construction	10/10/08A	12/18/09
AL Systemwide Testing/Pre-Revenue Service	06/26/09A	12/18/09
Airport Link Revenue Service Date		12/19/09



Scope

Limits: 13.9-mile double-track light rail transit (LRT) system between downtown Seattle and South 154th Street in Tukwila

Stations: 12 stations (including retrofit of four existing Downtown Seattle Transit Tunnel stations)

Budget: $2.433 billion (capital subtotal of $2.099 billion)

Schedule: Project completion was July 2009

Initial Segment Close - out Activities

The Initial Segment achieved Revenue Service as scheduled on July 18, 2009.

Final resolution of all outstanding claims and non-conformance issues has been addressed, and final contract completion has been reached on the Rainier Valley project. Follow-on work items in the Beacon Hill/Mt. Baker Station area and certain Systems elements were completed.

Project Cost Summary

The "Baseline Budget" represents the budget established in the FFGA executed in 2003. The current estimated final cost (EFC) for the project is $2.0B, which is approximately $133M less than the baseline budget. The EFC for the Capital Total reported this period is $2M less than last period. This is due primarily to the completion of several follow-on contracts, and Third Party and ROW commitments. Project cost information is summarized in the table below.

Project Element	Lifetime Budget	Commitment to Date (1)	Incurred to Date	Est. Final Cost (EFC)	Adopted Budget vs. EFC
Administration	$185.8	$185.5	$185.7	$186.2	($0.4)
Preliminary Engineering	$33.3	$33.3	$33.3	$33.3	$0.0
Final Design	$144.1	$144.0	$144.0	$144.1	($0.1)
Construction Services	$102.7	$102.6	$102.5	$102.8	($0.0)
3rd Party Agreements	$61.5	$61.7	$61.1	$61.1	$0.4
Construction	$1,233.3	$1,226.0	$1,225.0	$1,227.8	$5.5
Vehicles	$131.8	$131.8	$131.8	$131.8	$0.0
Right of Way	$206.5	$205.1	$205.0	$205.1	$1.5
Capital Total	**$2,099.0**	**$2,089.8**	**$2,088.4**	**$2,092.1**	**$6.9**
Project Reserve	$96.1	$0.0	$0.0	$0.0	$96.1
Financing(2)	$201.8	$201.8	$176.0	$176.0	$25.8
Transit Art	$10.7	$8.4	$8.2	$8.4	$2.4
DSTT Debt Service	$26.1	$23.7	$23.7	$23.7	$2.4
Project Total(3)	**$2,433.7**	**$2,323.7**	**$2,296.3**	**$2,300.2**	**$133.5**

Table figures in millions. Financials as of December 2012.

(1) Includes encumbrances beyond actual contract commitments.
(2) Financing costs are based on an allocation of subarea bonding and related capitalized interest with paid to date and forecasts updated annually during the first quarter of each year.
(3) Totals may not equal column sums due to rounding of line entries.

Scope

The Airport Link project included the environmental review, design, right-of-way acquisition, and construction of the 1.7-mile light rail extension from the Tukwila/International Boulevard Station at South 154th Street to the SeaTac/ Airport Station at South 176th Street. Revenue service began December 19, 2009.

Airport Link Close-out Activities

- Civil and Systems close-out work continues.

Project Cost Summary

The following table summarizes project cost information relative to the Adopted Budget (figures in millions) and costs are updated quarterly. The EFC represents the current estimate of the final cost for each line item.

The current estimated final cost (EFC) for the capital project is $261.2M, which is approximately $1.9M less than the current adopted budget. The EFC reported this period is approximately $500K less than last period due to the completion of all follow-on work, and Third Party and Real Estate commitments. All projects costs have either been paid or accrued. The EFC represents the actual final project cost.

Project Element	Adopted Budget	Commitment to Date	Incurred to Date	Est. Final Cost (EFC)	Adopted Budget vs. EFC
Administration	$10.9	$9.9	$9.8	$9.8	$1.0
Preliminary Engineering	$3.7	$3.7	$3.7	$3.7	$0.0
Final Design	$15.9	$15.7	$15.7	$15.7	$0.2
Construction Services	$15.5	$15.4	$14.9	$14.9	$0.7
Third-Party Agreements	$1.4	$1.5	$1.3	$1.3	$0.1
Construction	$188.6	$186.6	$184.8	$184.8	$3.8
Vehicles	$14.6	$14.5	$14.5	$14.5	$0.0
Right of Way	$12.6	$16.1	$16.5	$16.5	($4.0)
Project Total[(1)]	**$263.1**	**$263.3**	**$261.2**	**$261.2**	**$1.9**

Table figures in millions. Financials as of December 2012.

[(1)] Totals may not equal column sums due to rounding of line entries.

Scope

The S. 200th Link Extension is a 1.6-mile extension of light rail from the SeaTac/Airport Station to South 200th Street. After leaving SeaTac /Airport Station, the elevated route continues along the west side of International Blvd., turns southwest to cross South 188th Street, and continues along the east side of 28th Avenue South to an elevated station at South 200th Street sized to accommodate 4-car trains. A bus transfer facility, kiss and ride parking, and a 700 space structured park and ride facility will be located at the South 200th Street station. Up to 400 additional spaces will be constructed on Sound Transit property for use while the South 200th Street Station is an interim southern terminus of the Link system.

Preliminary engineering (PE) and the environmental impact statement (EIS) is complete and a Record of Decision (ROD) has been issued for this segment. A SEPA addendum and NEPA re-evaluation have been issued to document recent design refinements. The project is being delivered through a design/build approach to accelerate project completion by September 2016.

S. 200th Link Extension is in Final Design.

Map of S. 200th Link Extension.

Key Project Activities/Issues

- Need to determine the parking garage (S445) procurement method and apply to the Capital Projects Advisory Review Board (CPARB), if necessary, if a design build method is chosen.
- Finalize ROW acquisitions, especially on the east side of 28th Ave. S. Seven properties remain outstanding for S440, however all are on schedule to be available prior to construction.
- PSE Task Order 2 agreement (Early Utility Relocation Work) needs to be signed by ST, pending FTA and Buy America issue resolution.
- Port of Seattle has accepted a low bidder for the early utility relocation work that must be done prior to start of Design Build construction.
- ST Board approved the permanent station name for the station located at South 200th Street. The official name is Angle Lake Station.

Project Cost Summary

The following table (figures in millions) summarizes the cost information for the S. 200th Link Extension. The Baseline Budget for the project including the remaining design and projected right-of-way and construction cost was approved by the Sound Transit board in July 2011.

Phase	Lifetime Budget	Commit-ment to Date	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Budget Versus EFC
Administration	$16.10	$3.80	$4.60	$12.30	$16.10	$0.00
Preliminary Engineering	$5.90	$5.70	$5.70	$0.20	$5.90	$0.00
Final Design	$20.00	$4.30	$4.30	$13.60	$17.90	($2.10)
3rd Party Agreements	$6.90	$5.60	$1.30	$1.30	$6.90	$0.00
Construction Services	$15.10	$15.00	$0.50	$2.20	$17.20	$2.10
Construction	$275.70	$174.80	$7.30	$100.90	$275.70	$0.00
Right-of-Way	$43.50	$20.00	$13.60	$23.50	$43.50	$0.00
Total	**$383.20**	**$229.20**	**$37.30**	**$154.00**	**$383.20**	**($0.00)**

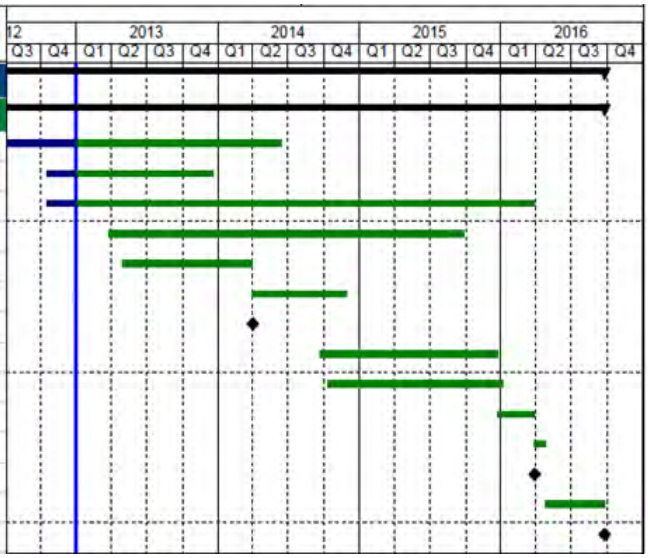
Project Schedule

The S. 200th Link Extension anticipated service launch is September 2016. The project schedule is presented below.

The project is currently in Final Design under the S440 Design-Build Guideway & Station contract. The Notice to Proceed was given on October 15, following a previously reported one month delay with no impact to the overall construction milestones. PCL and the designer HDR along with CM Team have mobilized on site.

The S445 Parking Garage contract is planned for procurement starting in 2nd QTR 2013.

Activity Name	Start	Finish
S 200th Link Extension Master Schedule		
Summary		
ROW - Acquisition	01-Mar-12 A	12-Jun-14
S440 Final Design	15-Oct-12 A	19-Dec-13
S440 Contract Duration	15-Oct-12 A	26-Mar-16
S440 Civil Construction	24-Mar-13	26-Sep-15
S445 Parking Garage Procurement	01-May-13	31-Mar-14
S445 Parking Garage Permitting and Design	01-Apr-14	28-Nov-14
S445 Parking Garage NTP	01-Apr-14	
S440 Systems Construction	21-Sep-14	25-Dec-15
S445 Parking Garage Construction & Commissioning	09-Oct-14	05-Jan-16
S440 Commissioning, Testing & Integration	25-Dec-15	26-Mar-16
ST Pre-Revenue Testing and Start-Up	26-Mar-16	25-Apr-16
S440 Substantial Completion		26-Mar-16
ST Project Float	25-Apr-16	24-Sep-16
Revenue Service Date (Baseline 09/24/2016)		24-Sep-16



Right-of-Way

The S. 200th Link Extension involves the acquisition of a range of property interests, including owner and tenant residential and commercial relocations. Property interests include compensable (e.g., easements, fee acquisitions) and non-compensable rights (e.g., rights of entry). The right-of-way program is summarized below.

Line Section	Total Parcels Certified	Offers Made	Signed Agreements	Admin. Settlements	Possession and Use	Closings to date	Baseline Relocations Required	Relocations Completed
S. 200th Link	61	57	12	0	19	11	6	1

The S. 200th Link Extension project involved the advance acquisition of three parcels that the Board approved in April 2006 and June 2007; the final decree was entered in July 2009. These parcels were acquired through the Regional Fund Contingency. Sound Transit's protective acquisition of these properties prevented development of parcels needed for the project. The acquisition of property rights from an additional 52 parcels along the route was authorized by the Board in July 2011. On February 23, 2012 the Board authorized the acquisition of property rights from an additional six parcels along the route.

The Port of Seattle commissioners approved the Memorandum of Agreement (MOA) for use of Port property. The Sound Transit Board approved the MOA on June 28, 2012.

Offers have been made on 57 parcels. A total of 33 parcels have now been submitted for condemnation and 32 parcels have been filed in court. The condemnation on the remaining parcel has been dismissed. ST has been granted Possession and Use though the court for 19 parcels.

Environmental

- Working with project team to review design build submittals.

Sound Transit Board Actions

Motion Number	Description	Date
M2012-92	*A motion of the Board adopting Angle lake Statin as the permanent name for the station located at South 200th Street on the South 200th Street Link Extension.*	*Dec 20*

Community Outreach

- Visited area hotels and told them about the start of geo tech work.

Quality Assurance Activities

Activities

- Approved Design Quality Training Plan and participated as instructor in training class.

Issues

- None to report.

Summary

Description	Dec 2012	Notes
No. of Audits Planned	2	50% design submittals for Highline Water & Midway Sewer Relocations
No. of Audits Completed	2	50% design submittals for Highline Water & Midway Sewer Relocations
Reports in Progress	0	
No. of Audits Postponed	0	

S440 Contract—Design Build (Guideway and Station)

Current Progress

The Design Build (DB) contract (S440) was issued NTP on October 15. The DB Contractor is currently working to establish a baseline schedule, cash flow and has held several design coordination meetings.

The schedule, critical path and Schedule Performance Index will be available once the baseline schedule is developed and approved.

Key Activities

Current Period

- Completed full co-location at the new field office.
- Continued weekly meetings at the new project field office.
- Completed Phase 1 and 2 of the geotechnical subsurface field exploration; Phase 3 followed.
- Prepared utility relocation packages and held plan rollout meetings with Highline Water and Midway Sewer.
- Representatives from the American Segment Bridge Institute and Post Tensioning Institute gave a presentation to ST Engineering Staff on the latest developments for post-tensioning and grouting specifications and means & methods. ST is working with DB Contractor to determine if revisions to the prescriptive post tensioning specs should be considered.

Next Period

- Continue Task Force, Design Coordination and over- the -shoulder review meetings.
- Continue Geotech investigation boring work.
- Baseline schedule is expected to be submitted in early January.
- ST and utility companies to complete review of the 50% Design Packages for Highline Water and Midway Sewer by mid-January.

Closely Monitored Issues

- None.

Cost Summary

Present Financial Status	Amount
S440 Contractor—PCL Civil Contractors, Inc.	
Original Contract Value	$169,000,000
Change Order Value	$8,206
Current Contract Value	$169,000,000
Total Actual Cost (Amount Billed)	$4,697,578
% of Authorized Billed to-date	3%
Physical Percent Complete:	0%
Authorized Contingency	$13,520,000
Contingency Drawdown	$0
Contingency Index*	0.1%

**Physical % complete / % contingency drawn down*

Geotech work is ongoing.

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Link Light Rail
Federal Way Transit Extension

Scope

The scope of work for this project includes Alternatives Analysis, followed by a Draft and Final Environmental Impact Statement leading to Sound Transit Board adoption of the project and FTA issuance of a Record of Decision in 2016. The project will also include conceptual engineering design to support the environmental analysis.

In addition to advancing the engineering design of the project sufficient to obtain a Record of Decision, design of the preferred alternative will be advanced through preliminary engineering for the initial 2.3-mile segment from South 200th Street to Kent/Des Moines. This will prepare this segment of the project for final design and construction, with anticipated revenue operations in 2023. Although not part of the initial scope, Sound Transit may exercise options to extend the scope of preliminary engineering south of Kent/Des Moines to South 272nd Street or the Federal Way Transit Center.

This project is updated quarterly.

Map of Federal Way Transit Extension project area.

Key Project Activities/Issues

- HDR continues work on the Phase 1 contract for Alternatives Analysis.
- Continuing to screen alternatives and prepare Alternatives Analysis Report.

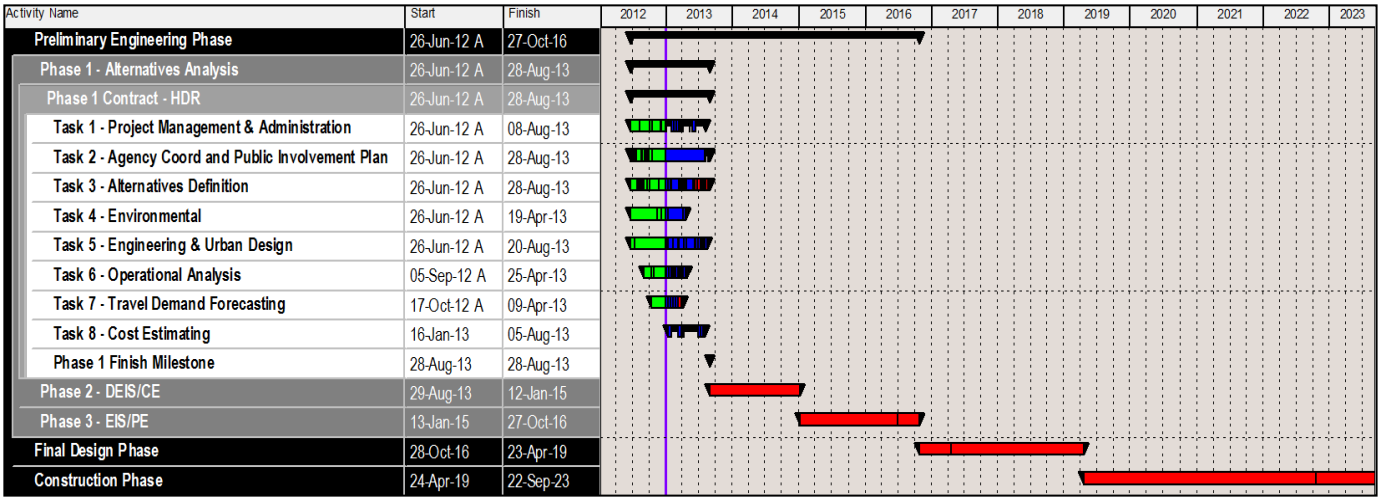
Project Cost Summary

The Federal Way Transit Extension project is currently funded through the completion of preliminary engineering (PE) and environmental documentation from S. 200th to Kent/Des Moines and for environmental documentation from Kent/Des Moines to Federal Way. Board approval for additional funding for final design and construction of S. 200th St. to Kent/Des Moines and for preliminary engineering of Kent/Des Moines to Federal Way to will be sought upon completion of funded work. Table (below) figures in millions.

Phase	Adopted Budget	Commitment to Date	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Budget Versus EFC
Administration	$9.4	$0.4	$0.5	$9.0	$9.4	$0.0
Preliminary Engineering	$30.9	$3.2	$1.2	$27.7	$30.9	$0.0
Third Party	$1.6	$0.0	$0.0	$1.6	$1.6	$0.0
Total	**$41.8**	**$3.6**	**$1.7**	**$38.3**	**$41.8**	**$0.0**

Project Schedule

Alternatives Analysis is expected to go through mid-2013. The DEIS and Conceptual Engineering will go through the end of 2014, the FEIS and Preliminary Engineering will go through late-2016, and it is anticipated that the Board will adopt the project and the FTA will issue the ROD in late 2016.


Activity Name
Start
Finish
2012
2013
2014
2015
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2018
2019
2020
2021
2022
2023
Preliminary Engineering Phase 26-Jun-12 A 27-Oct-16
Phase 1 - Alternatives Analysis 26-Jun-12 A 28-Aug-13
Phase 1 Contract - HDR 26-Jun-12 A 28-Aug-13
Task 1 - Project Management & Administration 26-Jun-12 A 08-Aug-13
Task 2 - Agency Coord and Public Involvement Plan 26-Jun-12 A 28-Aug-13
Task 3 - Alternatives Definition 26-Jun-12 A 28-Aug-13
Task 4 - Environmental 26-Jun-12 A 19-Apr-13
Task 5 - Engineering & Urban Design 26-Jun-12 A 20-Aug-13
Task 6 - Operational Analysis 05-Sep-12 A 25-Apr-13
Task 7 - Travel Demand Forecasting 17-Oct-12 A 09-Apr-13
Task 8 - Cost Estimating 16-Jan-13 05-Aug-13
Phase 1 Finish Milestone 28-Aug-13 28-Aug-13
Phase 2 - DEIS/CE 29-Aug-13 12-Jan-15
Phase 3 - EIS/PE 13-Jan-15 27-Oct-16
Final Design Phase 28-Oct-16 23-Apr-19
Construction Phase 24-Apr-19 22-Sep-23

Sound Transit Board Actions

Board motions and resolutions directly related to Federal Way Transit Extension is summarized in the table below for this quarter.

Motion Number	Description	Date
	None to report this period.	

Community Outreach

- Presentations in the interagency working group.

Phase 1 - Alternatives Analysis and EIS Scoping Overview

Sound Transit executed a professional services agreement with HDR Engineering, Inc. for Phase 1 professional services including an Alternatives analysis and EIS scoping in June 2012.

Key Phase 1 Activities

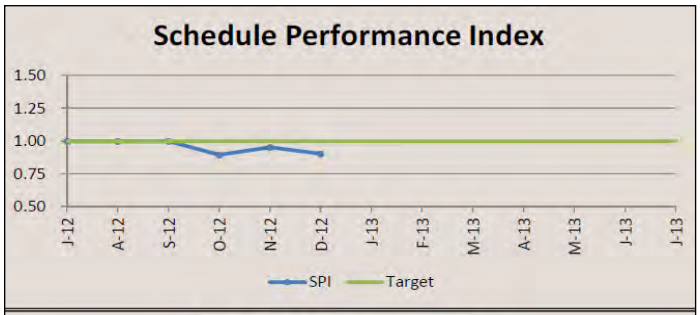
- Published Early Scoping Notice in the Federal Register.
- Conducted briefings and early scoping meetings.
- Developed draft early scoping summary report and began work on Level 1 alternatives screening report.
- Conducted environmental site visits and prepared draft environmental impact analysis methodologies.
- Conducted regular coordination meetings with various stakeholders including FTA, WSDOT, the Interagency Working Group, Metro, PSRC, and the cities.
- Developed draft transit integration plans and ridership estimates.

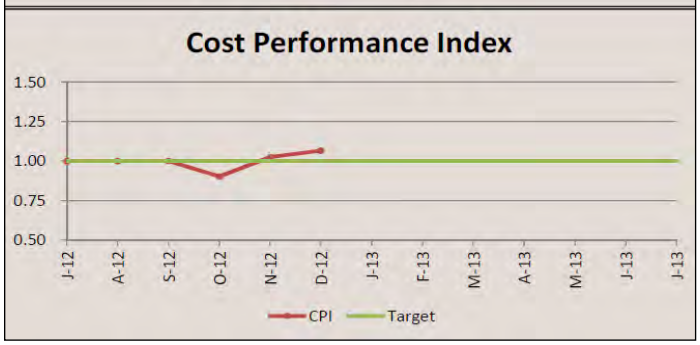
Phase 1 Schedule Performance

The Schedule Performance Index (SPI) trends at 0.90 through December. Most of the schedule variance is attributed to non-critical path work, but some critical path work has been delayed. The phase completion remains in August 2013 with final deliverables delayed to the end of that month. The consultant is looking at ways to bring final deliverables back to early August 2013.

Phase 1 Cost Performance

$1.1M of the total contract amount, approximately 38%, has been spent through December. The Phase 1 percent complete reported at the end of December is 41%, resulting in an earned value of $1.2M. The cumulative Cost Performance Index (CPI) is 1.07, which means that the expenditures are lower than the earned value. Based on the current trend, final cost is expected to be within or under budget.





Phase I Performance	Previous Phase I Cumulative	Current Quarter	Phase I Cumulative through Dec 2012
Amount Invoiced	$0	$524,483	$524,483
% Spent	0%	16%	16%
Earned Value	$0	N/A	N/A
% Complete	0%	Est. 15%	Est. 15%
CPI	N/A	N/A	N/A
SPI	N/A	N/A	N/A

Scope

In cooperation with the City of Tacoma and Pierce Transit, Sound Transit is studying the potential of expanding the Tacoma Link light rail system in the context of the City and Pierce Transit service and capital plans.

This project is updated quarterly.

The Tacoma Link Expansion Project is in Preliminary Engineering Phase.

Tacoma Link

Key Project Activities/Issues

- AA is being performed to evaluate corridor and alignment alternatives and also evaluate BRT as a mode alternative. As a product of this work, Sound Transit may select a preferred corridor and funding strategy. Design and construction delivery strategies, and a decision on whether Tacoma Link should connect with the larger regional Link light rail system, will be significant in determining expansion location, configuration, and costs.
- Sound Transit developed the scope of work with input from City of Tacoma and Pierce Transit. A technical advisory committee comprised of City, Pierce Transit and Sound Transit staff convened to provide technical feedback and guidance throughout the AA process. Sound Transit, the City of Tacoma and Pierce Transit signed a cooperative agreement term sheet.
- Until the FTA issues new guidance under MAP-21, Sound Transit will continue to follow FTA's AA guidance in order to maintain eligibility for future Small Starts grant funding.
- Sound Transit submitted an AA initiation package to the FTA in October 2012.

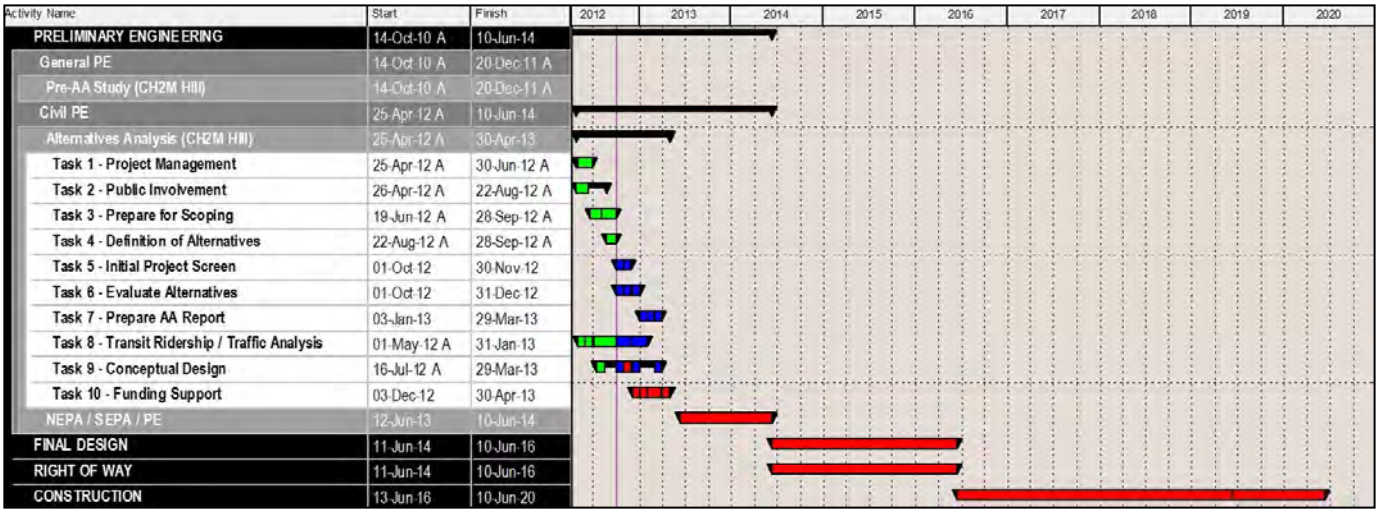
Project Cost Summary

The Tacoma Link Alternatives Analysis is currently funded through the completion of the alternatives analysis, PE and Environmental Documentation. Funding included in the ST2 financial plan represents a maximum capital contribution by Sound Transit to the overall cost of expanding Tacoma Link if other public or private entities provide additional funding. Board approval for funding environmental documentation, preliminary engineering, final design and construction will be sought upon completion of the alternatives analysis, a project funding strategy and agreements with funding partners. The proposed 2013 budget includes an increase to the project lifetime budget, shown in the EFC below. (Table in millions.)

Phase	Adopted Budget	Commitment	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Budget Versus EFC
Administration	$0.3	$0.2	$0.2	$0.8	$1.0	($0.7)
Preliminary Engineering	$4.6	$0.9	$0.4	$3.8	$4.7	($0.1)
Contingency	$0.1	$0.0	$0.0	$0.0	$0.0	$0.1
Total	**$5.0**	**$1.1**	**$0.6**	**$4.6**	**$5.8**	**($0.8)**

Project Schedule

The AA will be completed by the end of 1st QTR 2013. The project schedule is presented below.


Activity Name
Start
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2012
2013
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2020
PRELIMINARY ENGINEERING 14-Oct-10 A 10-Jun-14
General PE 14-Oct-10 A 20-Dec-11 A
Pre-AA Study (CH2M Hill) 14-Oct-10 A 20-Dec-11 A
Civil PE 25-Apr-12 A 10-Jun-14
Alternatives Analysis (CH2M Hill) 25-Apr-12 A 30-Apr-13
Task 1 - Project Management 25-Apr-12 A 30-Jun-12 A
Task 2 - Public Involvement 26-Apr-12 A 22-Aug-12 A
Task 3 - Prepare for Scoping 19-Jun-12 A 28-Sep-12 A
Task 4 - Definition of Alternatives 22-Aug-12 A 28-Sep-12 A
Task 5 - Initial Project Screen 01-Oct-12 30-Nov-12
Task 6 - Evaluate Alternatives 01-Oct-12 31-Dec-12
Task 7 - Prepare AA Report 03-Jan-13 29-Mar-13
Task 8 - Transit Ridership / Traffic Analysis 01-May-12 A 31-Jan-13
Task 9 - Conceptual Design 16-Jul-12 A 29-Mar-13
Task 10 - Funding Support 03-Dec-12 30-Apr-13
NEPA / SEPA / PE 12-Jun-13 10-Jun-14
FINAL DESIGN 11-Jun-14 10-Jun-16
RIGHT OF WAY 11-Jun-14 10-Jun-16
CONSTRUCTION 13-Jun-16 10-Jun-20

Community Outreach

- Held first Stakeholders Roundtable meeting.
- Hosted an open house on December 5 and approximately 47 people attended.
- Participated in various drop-in sessions at other locations.
- Prepared for online open house.

Scope

Sound Transit is reviewing and evaluating current and future light rail storage and maintenance requirements to support the development, design, and construction of a future light rail operations and maintenance facility for proposed system expansion.

This project is updated quarterly.

Key Project Activities/Issues

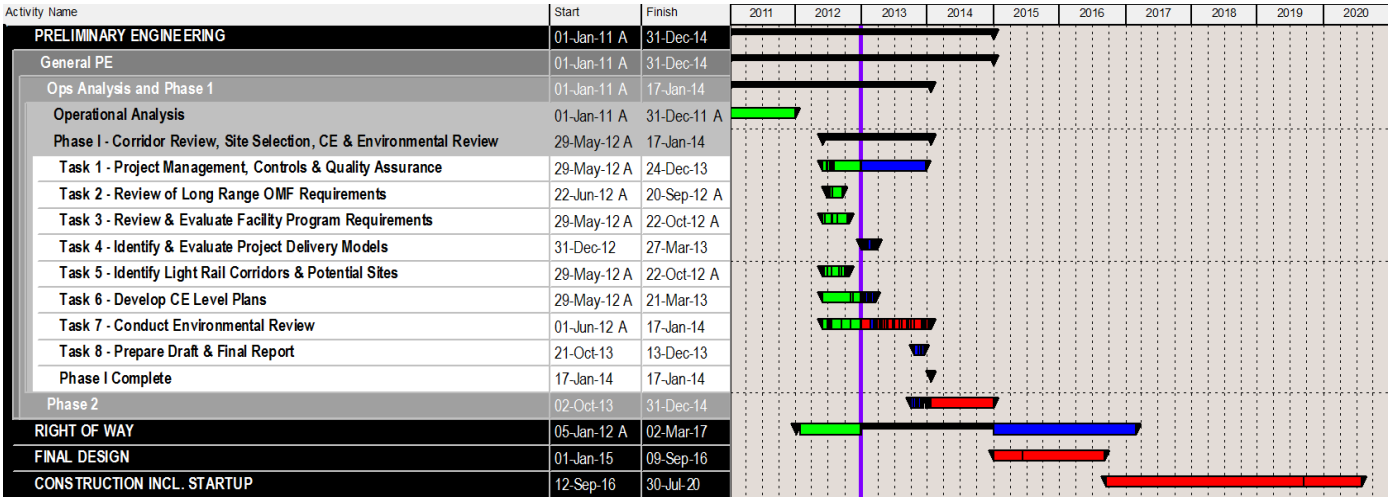
- Huitt-Zollars, Inc. continues work on their Phase 1 contract for conceptual engineering and environmental review.
- Identified long range requirements, potential corridors, and sites for the new Operations and Maintenance Satellite Facility (OMSF).
- Conducted environmental scoping and produced a scoping summary report.
- ST Board identified DEIS alternatives in December 2012.
- Pursuing protective acquisition of a parcel associated with one of the potential sites.
- Responded to public inquiries pertaining to OMSF site selections.

Program Cost

The Link Operations and Maintenance Satellite Facility (OMSF) project is currently funded through the completion of preliminary engineering (PE) and environmental documentation. Board approval for additional funding for final design and construction will be sought upon completion of PE. Table (below) figures in millions.

Phase	Adopted Budget	Commit-ment to Date	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Budget Versus EFC
Administration	$3.2	$0.2	$0.3	$3.0	$3.2	$0.0
Preliminary Engineering	$5.7	$2.2	$1.1	$3.5	$5.7	$0.0
3rd Party Agreements	$0.4	$0.0	$0.0	$0.4	$0.4	$0.0
Right of Way	$0.1	$0.0	$0.0	$0.1	$0.1	$0.0
Total	**$9.4**	**$2.5**	**$1.4**	**$7.0**	**$9.4**	**$0.0**

Program Schedule


Activity Name
Start
Finish
2011
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2018
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2020
PRELIMINARY ENGINEERING 01-Jan-11 A 31-Dec-14
General PE 01-Jan-11 A 31-Dec-14
Ops Analysis and Phase 1 01-Jan-11 A 17-Jan-14
Operational Analysis 01-Jan-11 A 31-Dec-11 A
Phase I - Corridor Review, Site Selection, CE & Environmental Review 29-May-12 A 17-Jan-14
Task 1 - Project Management, Controls & Quality Assurance 29-May-12 A 24-Dec-13
Task 2 - Review of Long Range OMF Requirements 22-Jun-12 A 20-Sep-12 A
Task 3 - Review & Evaluate Facility Program Requirements 29-May-12 A 22-Oct-12 A
Task 4 - Identify & Evaluate Project Delivery Models 31-Dec-12 27-Mar-13
Task 5 - Identify Light Rail Corridors & Potential Sites 29-May-12 A 22-Oct-12 A
Task 6 - Develop CE Level Plans 29-May-12 A 21-Mar-13
Task 7 - Conduct Environmental Review 01-Jun-12 A 17-Jan-14
Task 8 - Prepare Draft & Final Report 21-Oct-13 13-Dec-13
Phase I Complete 17-Jan-14 17-Jan-14
Phase 2 02-Oct-13 31-Dec-14
RIGHT OF WAY 05-Jan-12 A 02-Mar-17
FINAL DESIGN 01-Jan-15 09-Sep-16
CONSTRUCTION INCL. STARTUP 12-Sep-16 30-Jul-20

Phase 1 - Conceptual Engineering and DEIS Overview

Sound Transit executed a professional services agreement with Huitt-Zollars, Inc. for civil engineering and architectural design services and issued NTP for Phase 1, Conceptual Engineering and DEIS, for the Link Operations and Maintenance Satellite Facility (OMSF) project in May 2012.

Current Key Phase 1 Activities

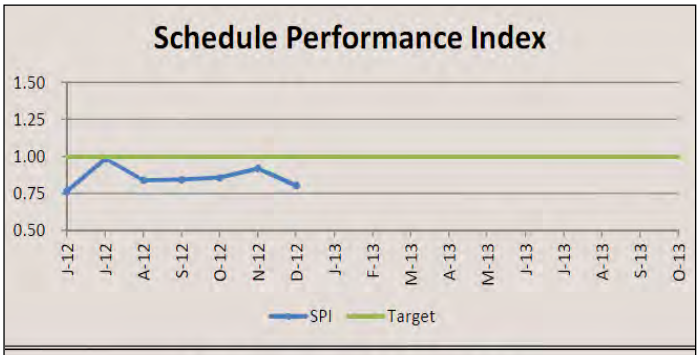
- Continued conceptual engineering and environmental activities.
- Developed right of way and yard/track layout for alternatives.
- Completed DEIS methodology templates and EIS scoping summary report
- Continued coordination with local jurisdictions and stakeholders.

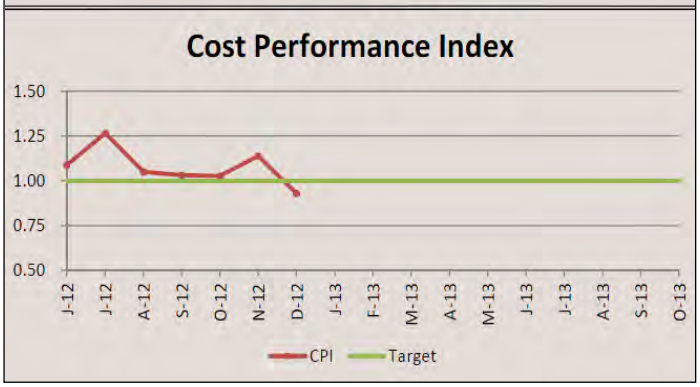
Phase 1 Schedule Performance

The Schedule Performance Index (SPI) trends at 0.81 through December 2012, which means that work accomplished is less than planned. Critical path work on task 7 is behind schedule due to delayed selection of DEIS alternatives. Work on CE-level plans and DEIS sections has started but has not progressed enough to accomplish significant earned value. The consultant has submitted a revised schedule showing Phase 1 completion moved out to January 2014. This is not anticipated to impact completion of preliminary engineering.

Phase 1 Cost Performance

As of December 2012, $914K of the total contract amount, approximately 44%, has been spent. The Phase 1 percent complete reported through December 2012 is 41%, resulting in an earned value of $851K. The cumulative Cost Performance Index (CPI) is 0.93, which means that the expenditures are higher than the earned value. Based on the current trend, final cost is expected to be at or above budget.





Phase I Performance	Previous Period	Sep.-Dec 2012	Cumulative Thru Dec 2012
Amount Invoiced	$526,718	$387,575	$914,293
% Spent	26%	18%	44%
Earned Value	$543,570	$307,497	$851,067
% Complete	26%	15%	41%
SPI	0.84	0.75	0.81
CPI	1.03	0.79	0.93

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Staffing

Recruiting Activity

During this reporting period (November 2012) there were no new hires.

During this reporting period (November 2012) there were no new hires.
Since the beginning of 2012, the Design, Engineering and Construction Management (DECM) Department has filled 19 vacant positions as well as 6 previously identified Open Positions (open only to existing Sound Transit staff) to support the various Link Extensions. From the perspective of the staffing plan, the Open positions do not represent additional approved positions.

Recruiting continued during for the following design, engineering and construction management positions:

Position	Project Assignment	Planned Hire Date
Chief of Staff	Capital Project Support	August 2011
Sr. Real Property Agent	Unspecified Capital Project Support	2011 Attrition
Deputy Construction Manager	Northgate Link Extension	January 2012
Project Coordinator	Northgate Link Extension	February 2012
Sr. Project Coordinator	University Link	February 2012
Architect	Unspecified Capital Project Support	May 2012
Value Engineering Manager	Unspecified Capital Project Support	November 2012
Deputy Construction Manager	Unspecified Capital Project Support	November 2012
Deputy Executive Director	Business and Construction Services	2012 Attrition
Construction Manager	University Link	2012 Attrition
Director Civil and Structural Engineering	Unspecified Capital Project Support	2012 Attrition
Project Control Coordinator	Unspecified Capital Project Support	2012 Attrition
Project Control Coordinator	Real Property Acquisition and Management/ TOD	2012 Attrition
Project Manager	Sounder Commuter Rail Program	2012 Attrition
Sr. Mechanical Engineer	Unspecified Capital Project Support	2012Attrition
Sr. Administrative Specialist	Executive Director's Office	2012 Attrition
Project Coordinator	Northgate/University Link Extensions	2012 Attrition
Sr. Civil Engineer	Unspecified Capital Project Support	2012 Attrition
Structural Engineer	Unspecified Capital Project Support	2012 Attrition

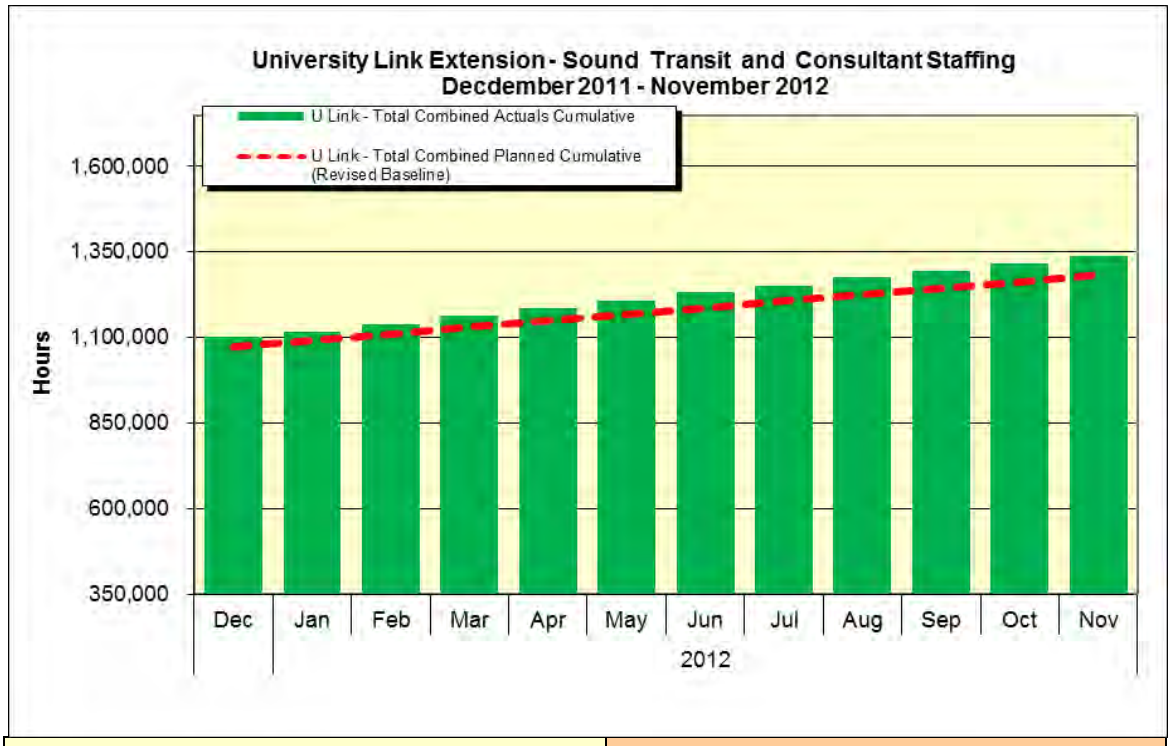
Project Staffing – Major Link Light Rail Programs

A total of 380.4 consultant and internal staff full time equivalents (FTE) participated in the major Link design and construction projects in November, a decrease of 5% (20.6 FTE) from the previous reporting period but consistent with the monthly staff projections in the 2012 Agency Staffing Plan (Staffing during the prior period was 5% above the 2012 Agency Staffing Plan projections). November staffing was above plan for the University, East and South 200th Link Extensions; staffing for the Northgate Link Extension was 76% of plan. A General Contractor/Construction Manager (GC/CM) project delivery approach is being used for the Northgate Link Extension U District and Roosevelt station finishes contracts. Design contracts for these stations have been suspended temporarily until procurement of GC/CM contractors in 2013, resulting in reduced staffing requirements. Staffing for the Northgate Link Extension will likely continue to trend below plan over the next several reporting periods until progress on the design contracts resumes.

University Link Extension Staffing

Total Internal and External Staffing – University Link Extension

During this reporting period, 130.6 consultant and internal staff were committed to the University Link Extension. This is 2% (2.5 FTE) below the 133.2 FTE staffing the previous reporting period but is 7.7% (9.3 FTE) above staffing reported for September 2012. Cumulatively average project staffing continues to trend slightly (4.4%, 4.6 FTE/mo) above plan.



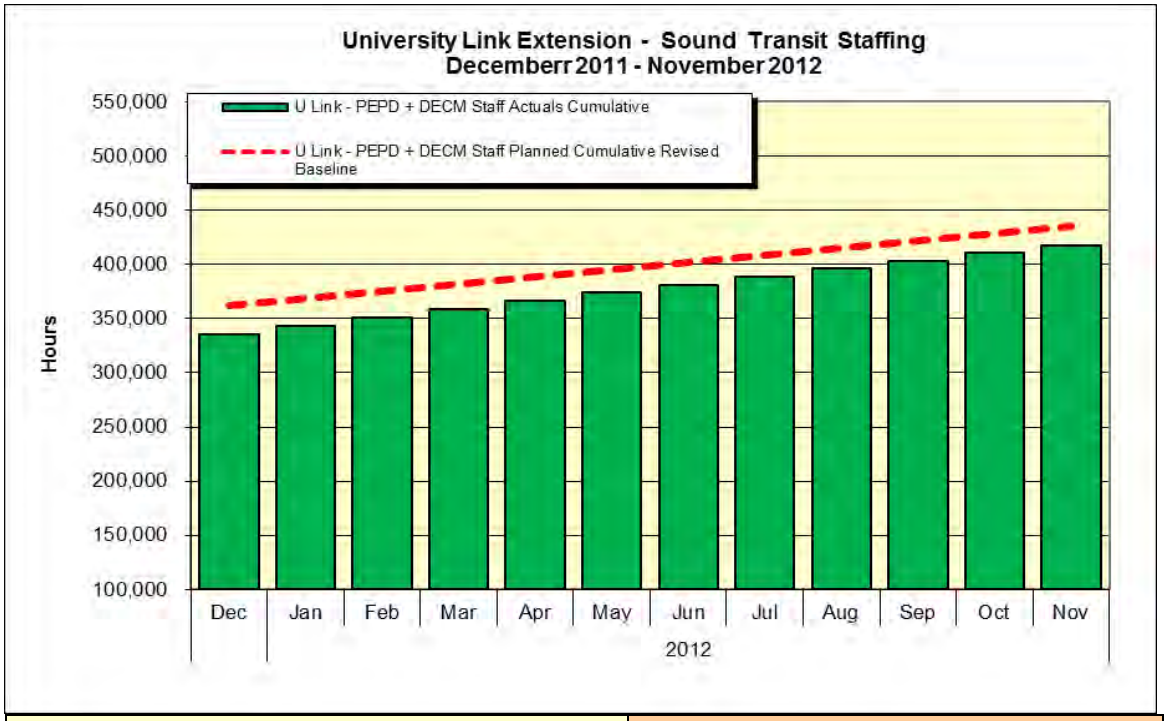
	Labor Hours to Date				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	1,282,052.8	1,337,833.9	55,781.1	104.4%	18,448.0	20,898.0	2,450.0	113.3%
Monthly Average	16,869.1	17,603.1	734.0					
Monthly FTE	105.4	110.0	4.6		115.3	130.6	15.3	

University Link Extension Staffing, continued

Internal Resource Commitments to University Link Extension

The equivalent of 41.2 full-time internal staff was committed to the University Link Extension during this reporting period. This is 18% (9 FTE) below the 50.3 FTE staffing the previous reporting period but equivalent to the monthly staff projections in the staffing plan. Internal staffing decreased during November due primarily to the November holidays; in future reporting periods, internal staffing is projected to be at or above plan.

Cumulatively since August 2006, average internal staffing is trending 4% (1.4 FTE/mo) below the baseline.



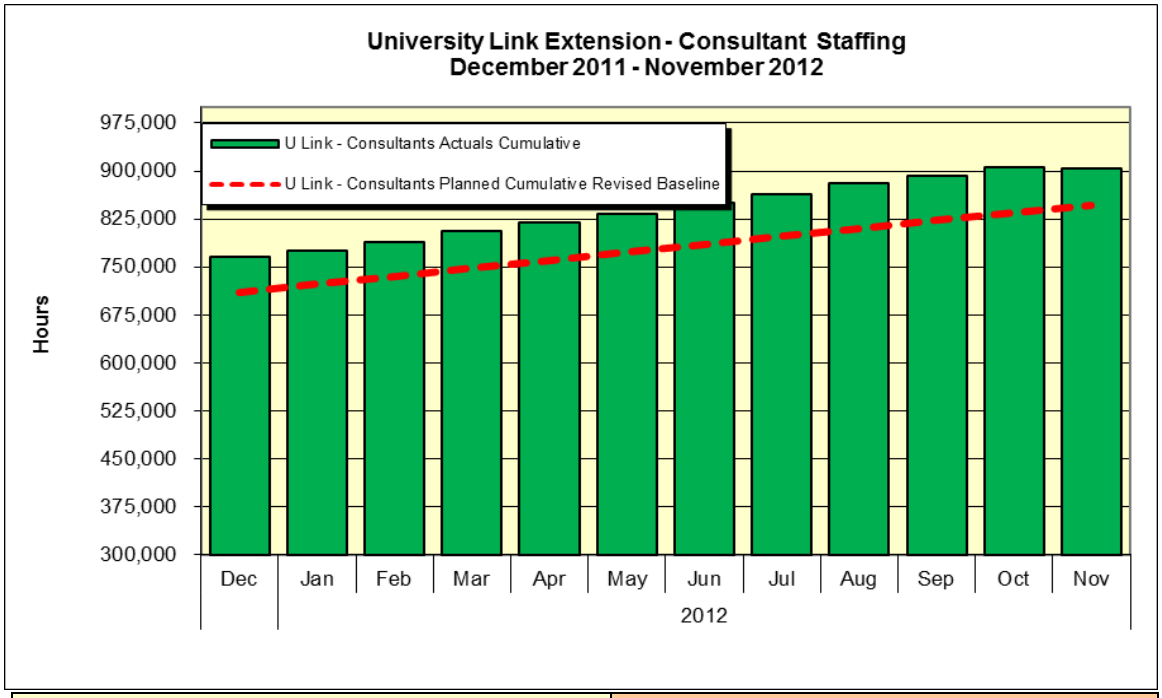
	Labor Hours to Date				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	434,927.8	417,655.5	-17,272.3	96.0%	6,592.0	6,597.8	5.8	100.1%
Monthly Average	5,722.7	5,495.5	-227.3					
Monthly FTE	35.8	34.3	-1.4		41.2	41.2	0.0	

University Link Extension Staffing, continued

Consultant Resource Commitments to University Link Extension

During this reporting period 89.4 consultant FTE were assigned to the University Link Extension; this is 8% (6.6 FTE) above the 82.8 consultant FTE staffing the previous reporting period and 15.3 FTE above the planned staffing of 74.1 FTE.

Cumulatively, average consultant staffing is trending 6.6% (4.6 FTE/mo) above plan.



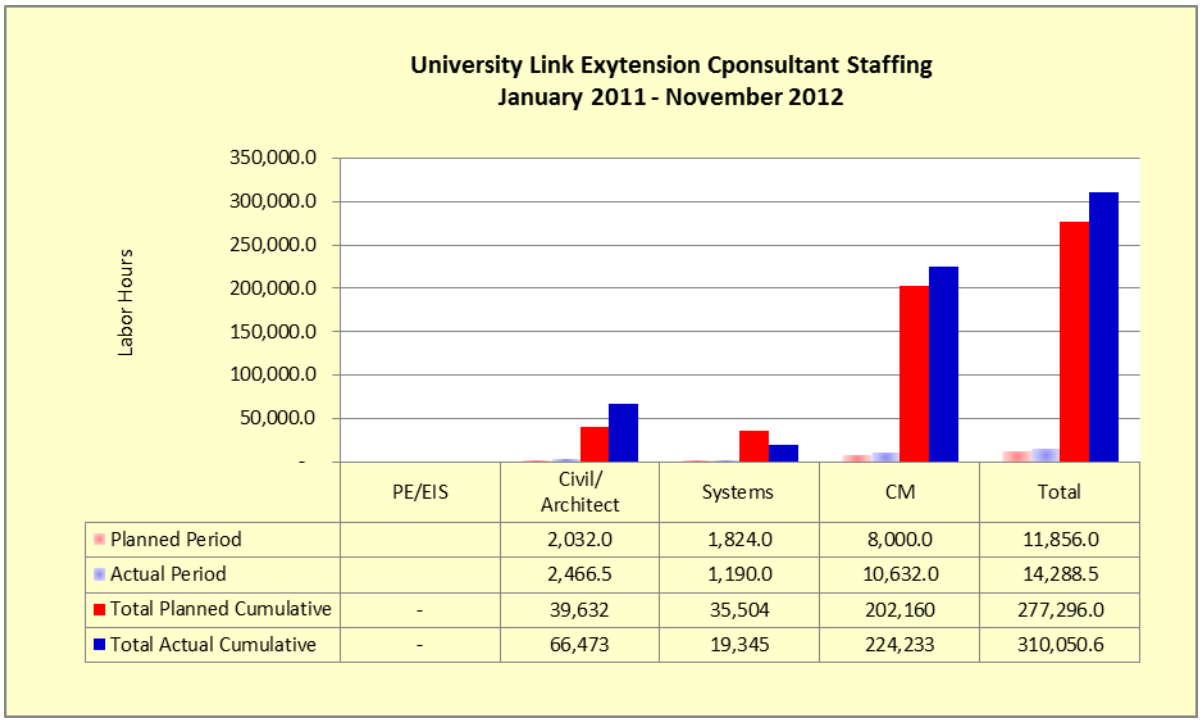
	Labor Hours to Date				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	847,125.0	903,084.9	55,959.9	106.6%	11,856.0	14,300.2	2,444.2	120.6%
Monthly Average	11,146.4	11,882.7	736.3					
Monthly FTE	69.7	74.3	4.6		74.1	89.4	15.3	

University Link Extension Staffing, continued

Consultant Resource Commitments to University Link Extension, continued

Consultant utilization by discipline on the University Link Extension since January 2011 is illustrated below. As with previous reporting periods, the highest consultant utilization in November (66.5 FTE) was for Construction Management (CM). The November 2012 CM consultant staffing increased 14% (8.4 FTE) from the 58.1 FTE staffing the previous reporting period and was 33% (16.5 FTE) above planned staffing of 50 FTE. Cumulatively since January 2011, CM consultant staffing remained 11% (6 FTE/mo) above staffing plan projections.

There were 15.4 consultant FTE providing civil engineering and architectural support to the University Link Extension in November a decrease of 19% (3.6 FTE) from the 19.1 FTE staffing the previous reporting period and 2.7 FTE (21% %) above plan; 7.4 consultant FTE were providing Systems support, an increase of 31% over the 5.7 FTE providing Systems support during the previous reporting period. Systems consultant utilization is increasing as the U830 Systems GC/CM contract progresses.

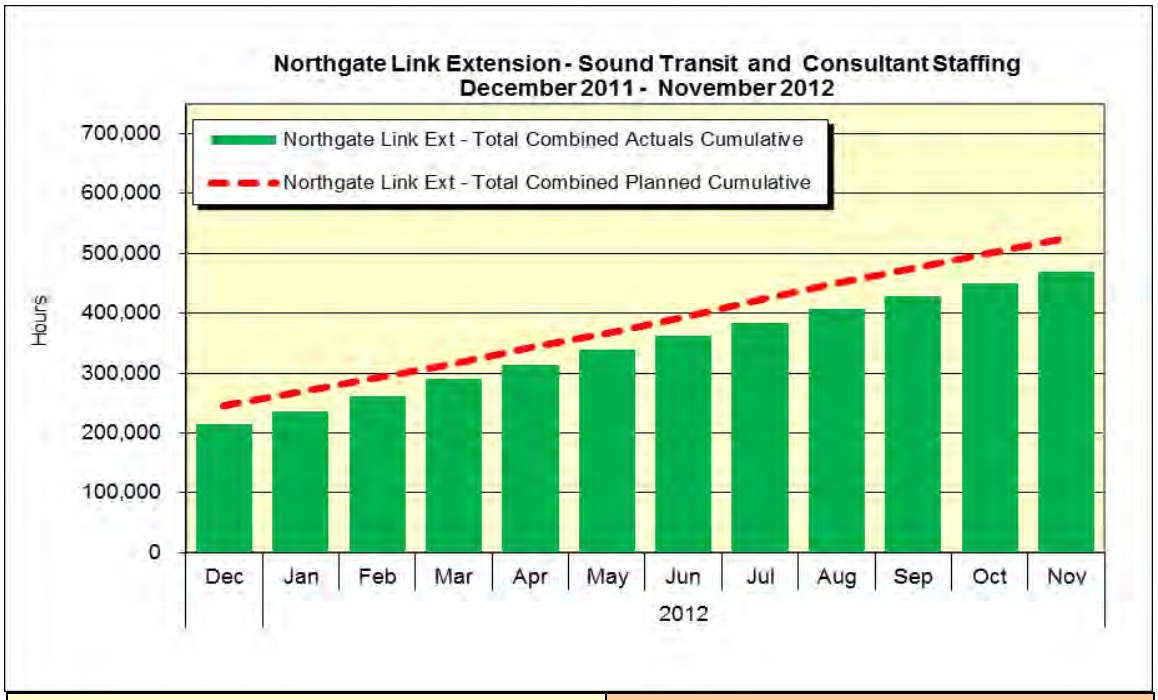


	PE/EIS	Civil/ Architect	Systems	CM	Total
Planned Period		2,032.0	1,824.0	8,000.0	11,856.0
Actual Period		2,466.5	1,190.0	10,632.0	14,288.5
Total Planned Cumulative	-	39,632	35,504	202,160	277,296.0
Total Actual Cumulative	-	66,473	19,345	224,233	310,050.6

Northgate Link Extension Staffing

During this reporting period 119.2 internal and consultant staff was assigned to the Northgate Link Extension. This is a 13% (18 FTE) decrease from the 137.1 FTE staffing the previous reporting period and 24% (37 FTE) below the 156.2 FTE staffing plan baseline. As previously reported, the 60% design milestones have been reached for the U District and Roosevelt station finishes contracts; design activity for these contracts has been suspended until GC/CM firms are re-tained to allow the Agency to benefit from input and experiences of theses contractors on station design elements. The GC/CM contractors for the stations are expected to be procured in 2013.

Cumulatively, since January 2011, average staffing for the Northgate Link Extension is trending 10.9% (15.6 FTE/mo) below plan.

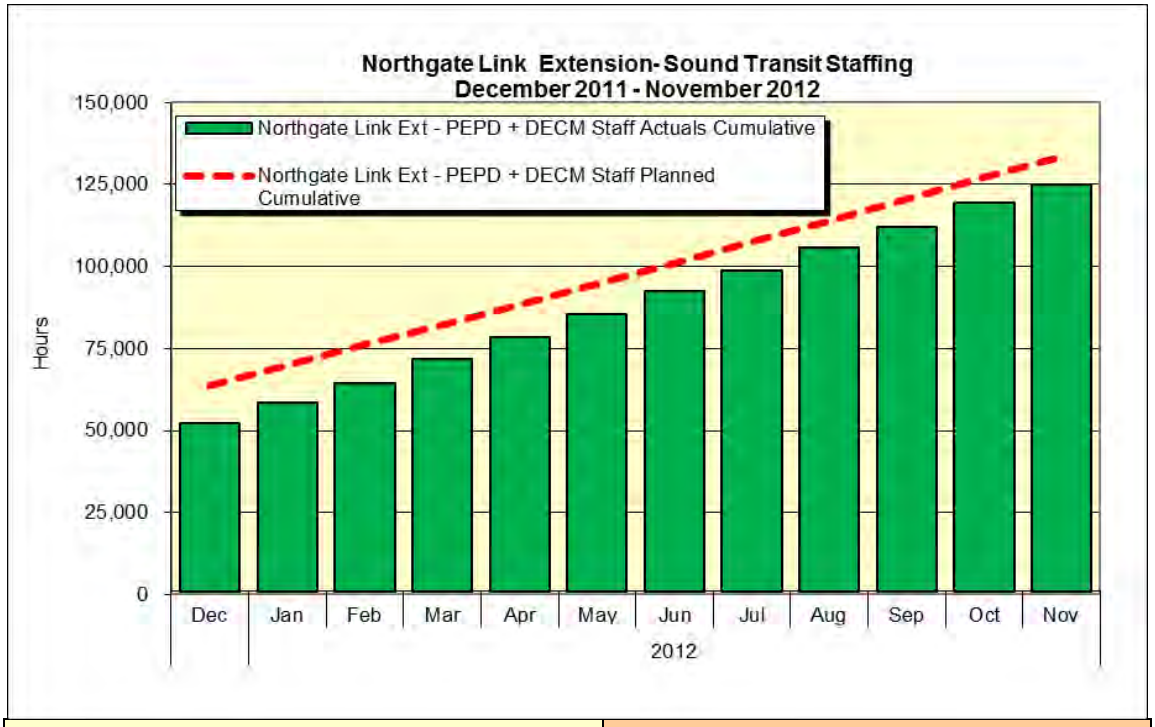


	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	526,016.0	468,550.8	-57,465.2	89.1%	24,992.0	19,070.5	-5,921.5	76.3%
Monthly Average	22,870.3	20,371.8	-2,498.5					
Monthly FTE	142.9	127.3	-15.6		156.2	119.2	-37.0	

Northgate Link Extension Staffing, continued

Internal Resource Commitments to Northgate Link Extension

During November, 35.6 internal FTE were assigned to the Northgate Link Extension 22% (10.3 FTE) below internal staffing for the previous reporting period and 13% (5.5 FTE) below the baseline staffing plan. Cumulatively, since January 2011, average internal staffing continues to trend below plan by approximately 6.4% (2.3 FTE/mo).



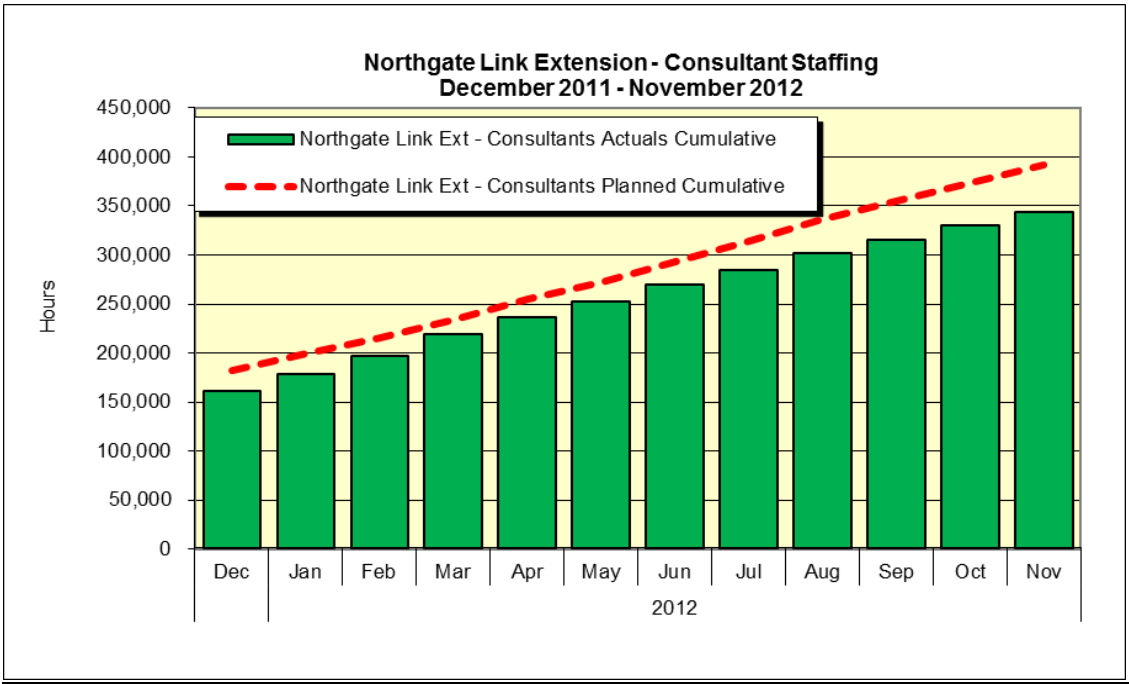
	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	133,632.0	125,065.3	-8,566.7	93.6%	6,576.0	5,697.4	-878.6	86.6%
Monthly Average	5,810.1	5,437.6	-372.5					
Monthly FTE	36.3	34.0	-2.3		41.1	35.6	-5.5	

Northgate Link Extension Staffing, continued

Consultant Resource Commitments to Northgate Link Extension

During November, 83.6 consultant FTE were assigned to the Northgate Link Extension, approximately 8% (7.7 FTE) below the 91.3 FTE consultant staffing for the previous reporting period and 27% (31.5 FTE) below planned consultant staffing of 115.1 FTE. The lower consultant utilization reflects the completion of 60% design deliverables and suspension of design activities for the station finishes contracts for the U District and Roosevelt Stations.

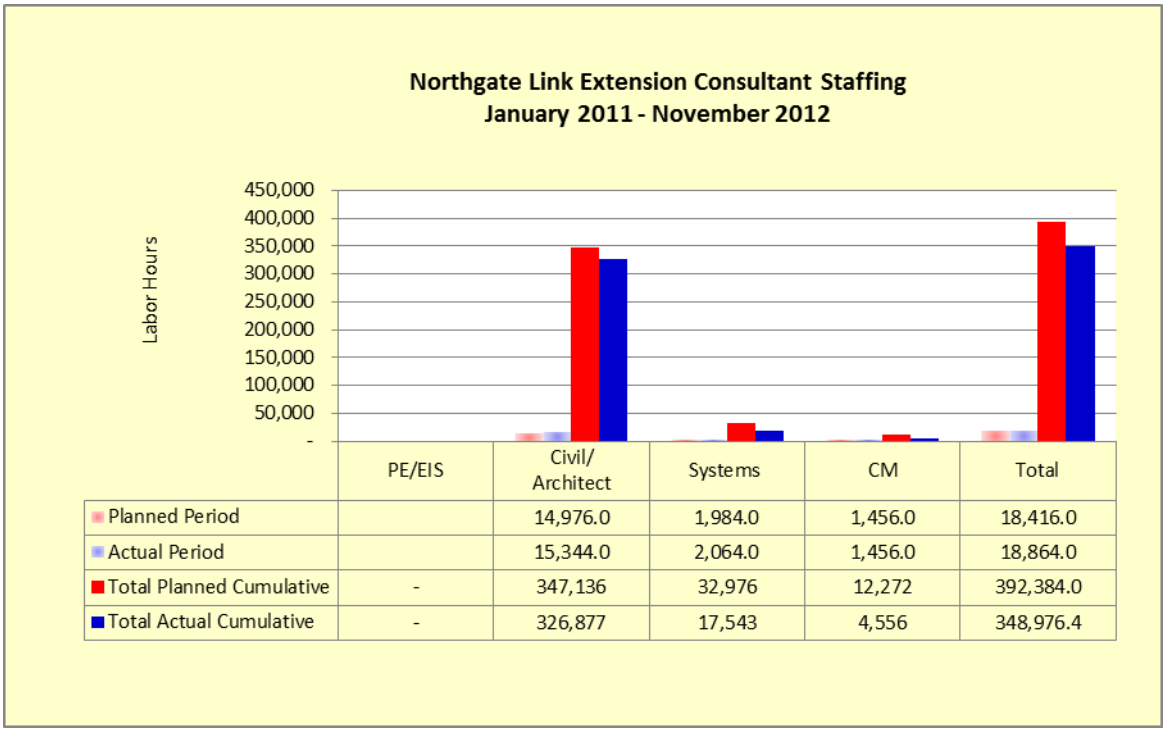
Average cumulative consultant staffing since January 2011 is trending 12.5% (13.3 FTE/mo) below plan.



	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	392,384.0	343,485.5	-48,898.5	87.5%	18,416.0	13,373.1	-5,042.9	72.6%
Monthly Average	17,060.2	14,934.2	-2,126.0					
Monthly FTE	106.6	93.3	-13.3		115.1	83.6	-31.5	

Northgate Link Extension Staffing, continued

Consultant Resource Commitments to Northgate Link Extension



	PE/EIS	Civil/ Architect	Systems	CM	Total
Planned Period		14,976.0	1,984.0	1,456.0	18,416.0
Actual Period		15,344.0	2,064.0	1,456.0	18,864.0
Total Planned Cumulative	-	347,136	32,976	12,272	392,384.0
Total Actual Cumulative	-	326,877	17,543	4,556	348,976.4

Consultant utilization by discipline follows:

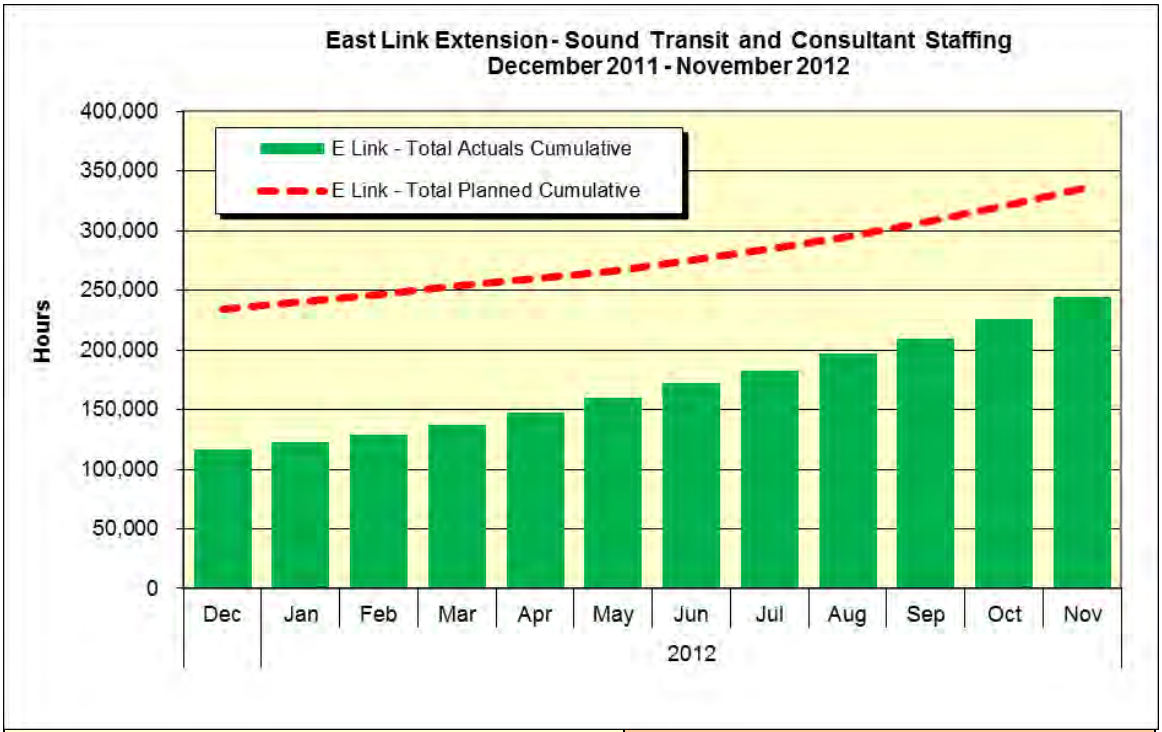
- Civil/architecture consultant utilization for November increased 29% (21 FTE) from the 72.6 FTE staffing the previous reporting period; civil/architecture consultant utilization (93.6 FTE) was 2% (2.3 FTE) below planned staffing of 95.9 FTE. Civil design elements for station finishes contract packages that will be delivered through GC/CM contracting were suspended upon reaching the 60% design milestone to take advantage of the design input that can be offered by the GC/CM contractor. Cumulatively since January 2011, civil/architecture consultant utilization is trending 6% (5.5 FTE/mo) below plan.

- Systems consultant utilization is trending 4% (0.5 FTE) below the 12.9 Systems consultant FTE planned to support the Northgate Link Extension. Systems consultant utilization increased 27% (2.6 FTE) from the 9.8 FTE staffing the previous reporting period. Systems consultant staffing has increased 181% (8 FTE) since September 2012 and is nearing staffing plan levels. Cumulative Systems consultant staffing (since January 2011) however, continues to average 4.2 FTE/mo (50%) below plan. Systems consultant staffing is projected to trend at plan as systems design is advanced.

- CM consultant staffing increased 3% (0.2 FTE) from the 3 FTE staffing the previous reporting period to 9.1 FTE, the planned staffing level. Cumulatively CM consultant staffing remains 1.2 FTE/mo below plan due to the delay in the start of early work at the Roosevelt Station site. In addition, earlier baselines planned for utilization of CM resources in 2011; this early projection is reflected in planned cumulative total

East Link Extension Staffing

During this reporting period, 111.5 internal and consultant staff was assigned to the East Link Extension, approximately 9% (9.2 FTE) above the 102.3 FTE staffing the previous reporting period and 29% (25 FTE) above the planned staffing of 86.5 FTE. As with the previous reporting period, additional staff for the current period includes consultants and staff engaged in the Agency's efforts with the City of Bellevue to identify and evaluate potential cost saving design alternatives and the continuation of final design and corridor wide systems engineering.



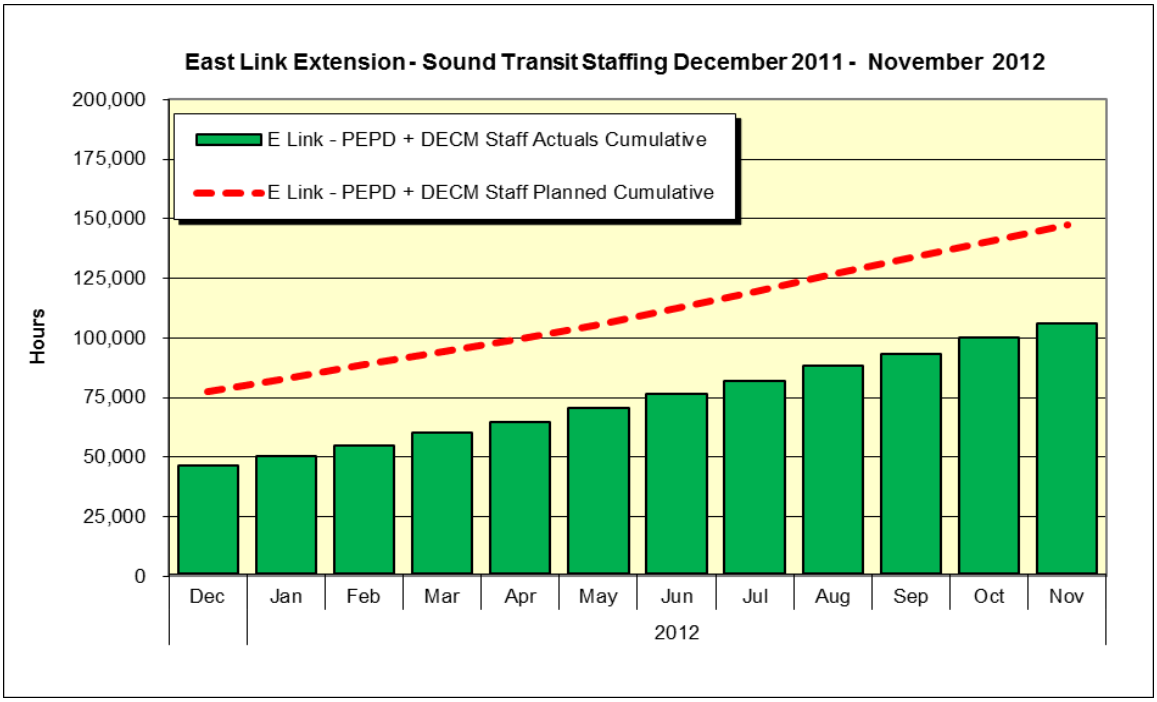
	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	335,040.0	244,092.1	-90,947.9	72.9%	13,840.0	17,837.5	3,997.5	128.9%
Monthly Average	14,567.0	10,612.7	-3,954.3					
Monthly FTE	91.0	66.3	-24.7		86.5	111.5	25.0	

Cumulatively since January 2011, staffing is trending 27.1% (24.7 FTE) below plan. This is attributable to the delay in the transition of the project from preliminary engineering to final design to obtain jurisdictional concurrence for the alignment and efforts with the City of Bellevue identify and evaluate cost savings proposals.

East Link Extension Staffing, continued

Internal Resource Commitments to East Link Extension

During November, internal staffing for the East Link Extension was 37 FTE 11% (4.5 FTE) below the 41.5 FTE staffing the previous reporting period and 16% (6.9 FTE) below planned staffing. Cumulatively, since January 2011 average internal staffing is trending 28.3% (11.4 FTE) below plan due to the delay in the transition from preliminary to final design. Internal staffing is adequate to support on-going design activities.

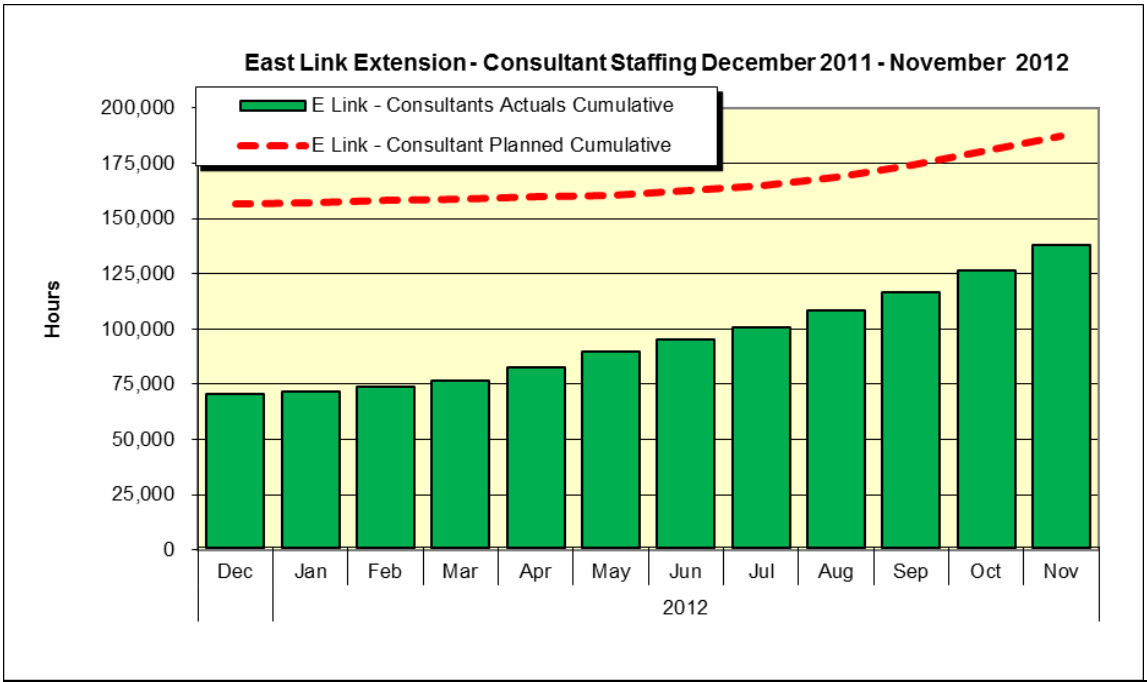


	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	147,632.0	105,830.1	-41,801.9	71.7%	7,024.0	5,914.3	-1,109.7	84.2%
Monthly Average	6,418.8	4,601.3	-1,817.5					
Monthly FTE	40.1	28.8	-11.4		43.9	37.0	-6.9	

East Link Extension Staffing

Consultant Resource Commitments to East Link Extension

During November, 74.5 consultant FTE were assigned to the East Link Extension, 13.8 FTE (23%) above the 60.8 FTE staffing the previous reporting period and 75% (32 FTE) above planned staffing of 42.6 FTE. Since September consultant staffing has increased by 24 FTE (48%) and cumulatively since January 2011 is trending on average 13.4 FTE/mo (26.2%) below plan; in the plan, initiation of final design was anticipated earlier in 2012 than occurred.

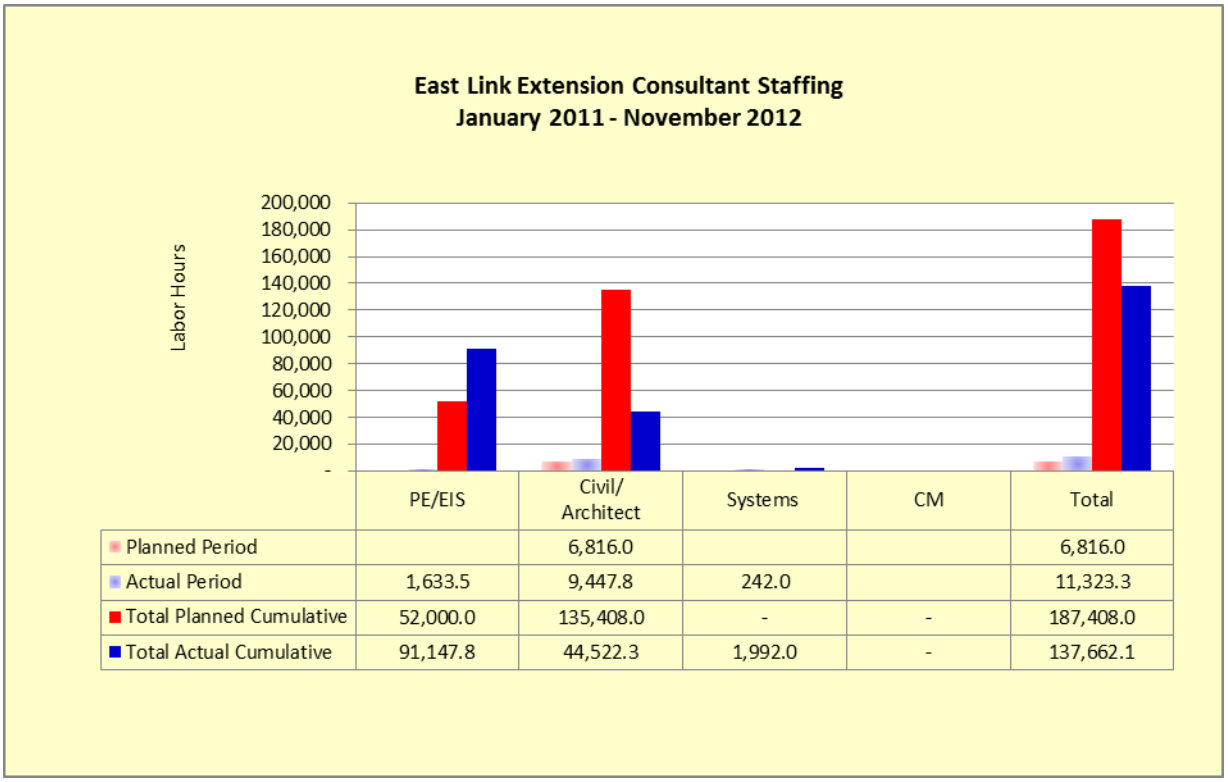


	Labor Hours				Current Period October 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	187,408.0	138,262.1	-49,146.0	73.8%	6,816.0	11,923.3	5,107.3	174.9%
Monthly Average	8,148.2	6,011.4	-2,136.8					
Monthly FTE	50.9	37.6	-13.4		42.6	74.5	31.9	

East Link Staffing, continued

Consultant Resource Commitments to East Link, continued

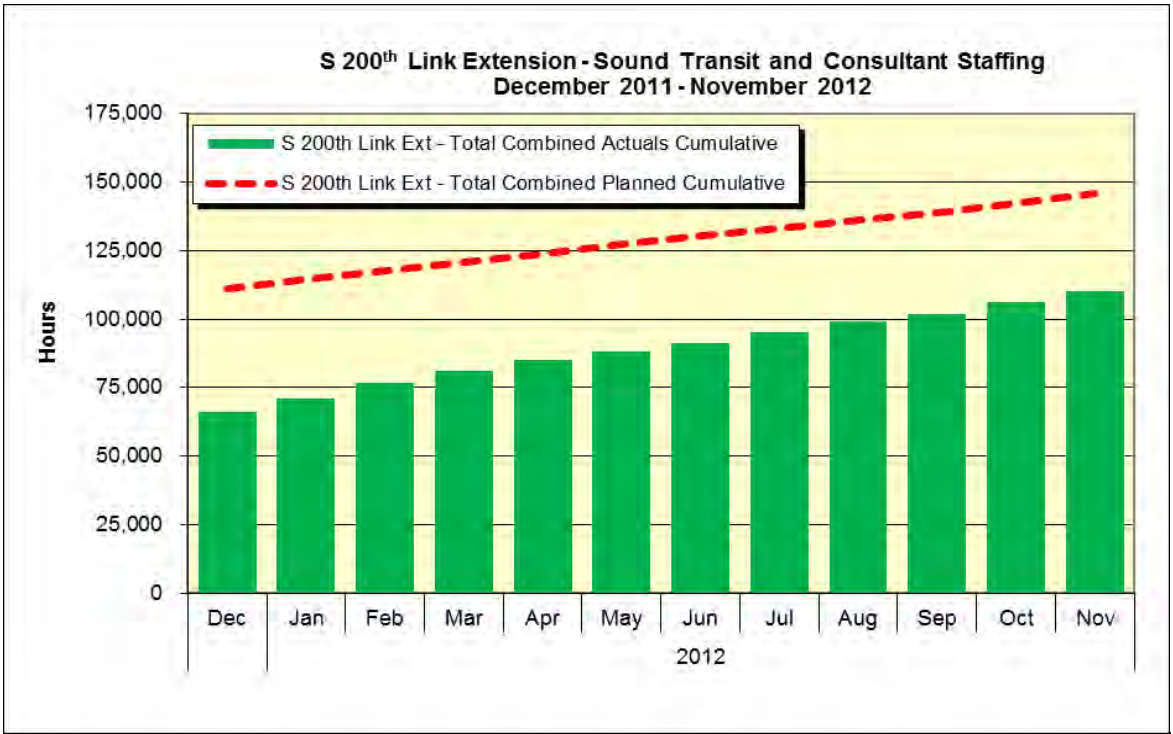
Consultant utilization by discipline since January 2011 is reflected below. As evaluation and development of the Bellevue cost saving measures continued in November, unplanned preliminary engineering level of effort (10.2 FTE) was expended. Civil engineering consultant staffing in November trended within 16% (16.4 FTE) of plan.



	PE/EIS	Civil/ Architect	Systems	CM	Total
Planned Period		6,816.0			6,816.0
Actual Period	1,633.5	9,447.8	242.0		11,323.3
Total Planned Cumulative	52,000.0	135,408.0	-	-	187,408.0
Total Actual Cumulative	91,147.8	44,522.3	1,992.0	-	137,662.1

S. 200th Link Extension Staffing

During this reporting period, 24.9 internal and consultant staff was assigned to the South 200th Link Extension, a decrease of 12% (3.5 FTE) from the 28.4 FTE staffing the previous reporting period but 9% (2.1 FTE) above the planned staffing of 22.8 FTE.



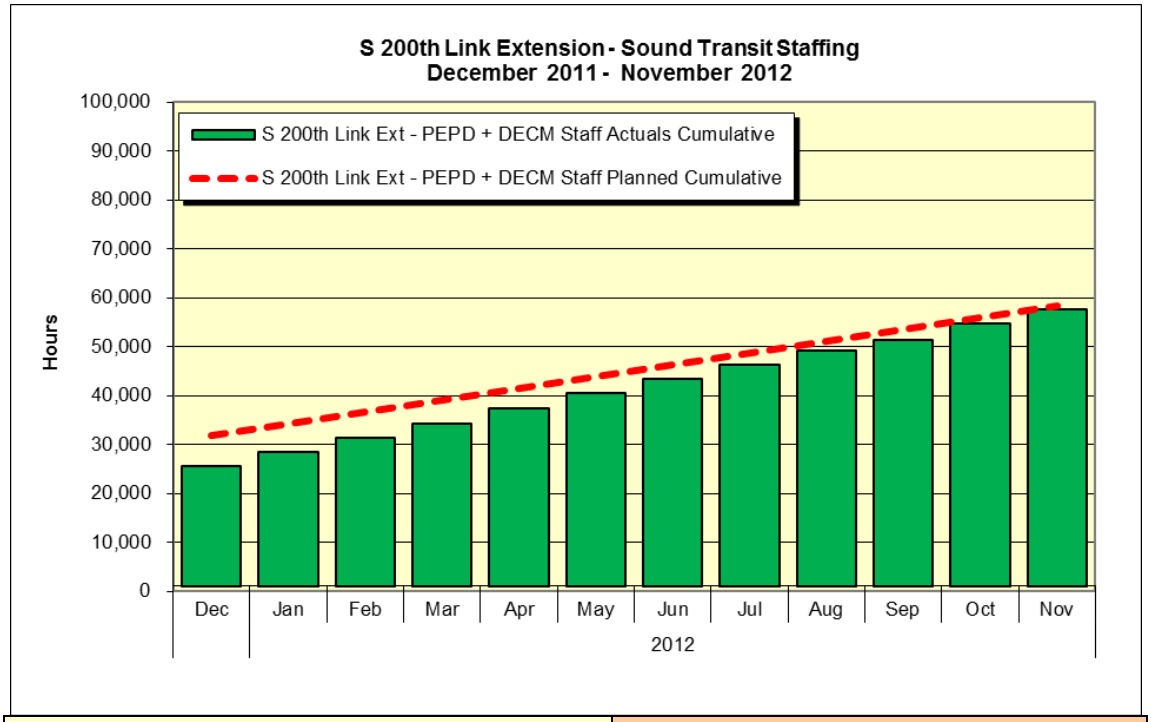
	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	145,763.2	110,250.4	-35,512.8	75.6%	3,648.0	3,979.4	331.4	109.1%
Monthly Average	6,337.5	4,793.5	-1,544.0					
Monthly FTE	39.6	30.0	-9.7		22.8	24.9	2.1	

Since January 2011, average internal and consultant staffing continues to trend 24.4% (9.7 FTE/mo) below plan. In the 2012 Staffing Plan, the baseline for this project was adjusted to reflect reduced internal staffing requirements for the South 200th Link Extension design/build delivery strategy.

S. 200th Link Extension Staffing, continued

Internal Resource Commitments South Link to S.200th Link Extension

During November, 17.8 internal FTE were assigned to the South 200th Link Extension, 17% (3.7 FTE) below the 21.5 FTE staffing the previous reporting period and 18% (2.8 FTE) above plan.



	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	58,259.2	57,498.1	-761.1	98.7%	2,400.0	2,843.4	443.4	118.5%
Monthly Average	2,533.0	2,499.9	-33.1					
Monthly FTE	15.8	15.6	-0.2		15.0	17.8	2.8	

Cumulatively, since January 2011, average internal staffing is trending 1.3% (0.2 FTE/mo) below plan.
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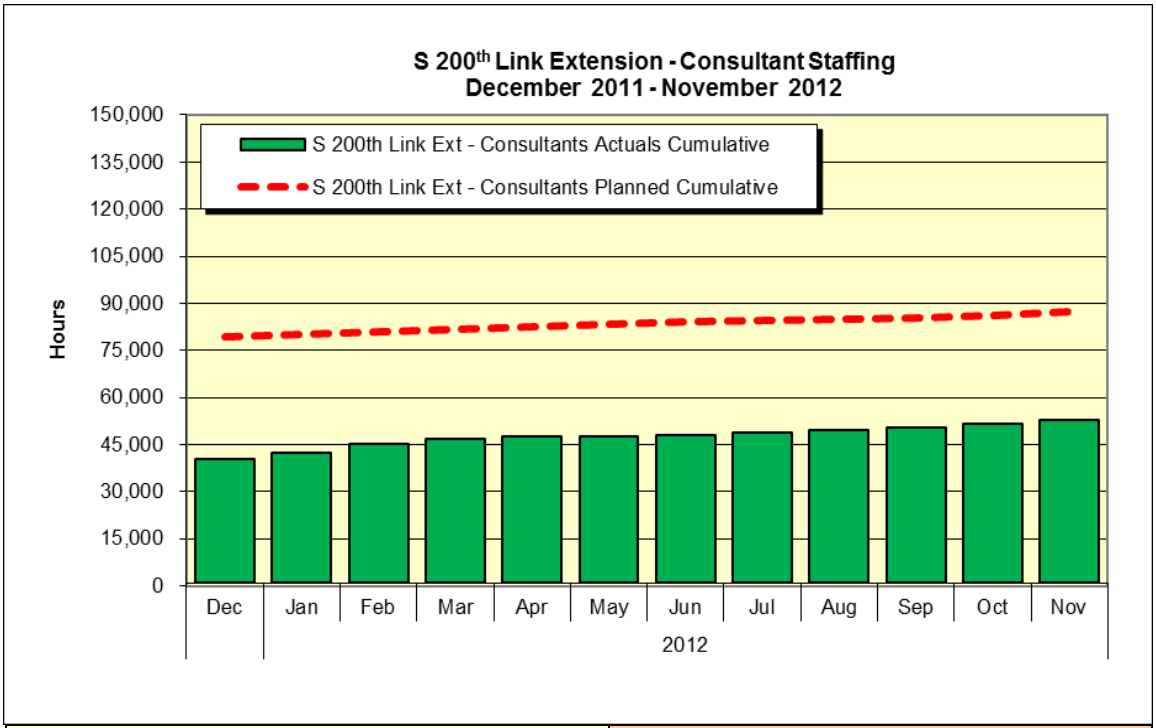
S. 200th Link Extension Staffing, continued

Consultant Resource Commitments to S. 200th Link Extension

During November, 7.1 consultant FTE were assigned to the South 200th Link Extension, 3% (0.2 FTE) above the 6.9 FTE staffing the previous reporting period and 0.7 FTE (9%) below plan. Consultant staffing continued for preliminary engineering for the parking structure and the roadway improvements in the vicinity of the South 200th Station. In addition, with the design/build contractor fully mobilized, the design/build project management consultant staff size increased to by 1.6 FTE to 6.4 FTE. Cumulatively, since January 2011, average consultant staffing is trending 39.7% (9.4 FTE/mo) below plan.

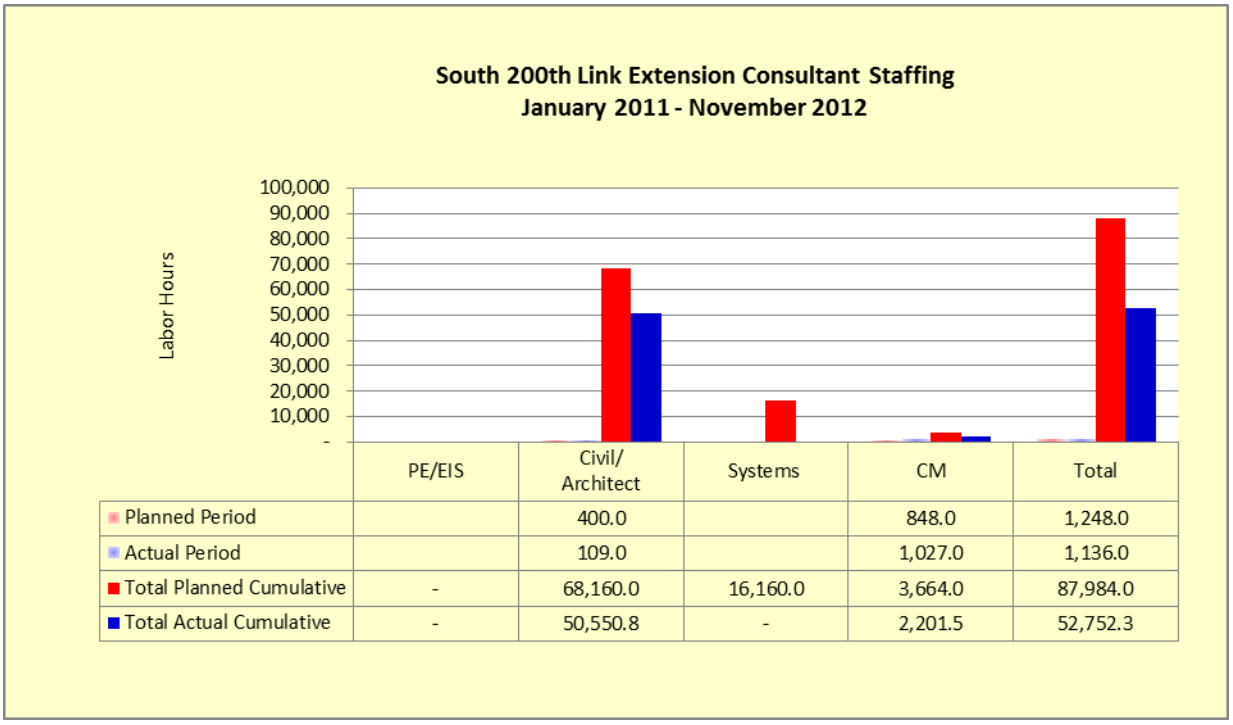


	Labor Hours				Current Period November 2012			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
Nos. of Hours	87,504.0	52,752.3	-34,751.8	60.3%	1,248.0	1,136.0	-112.0	91.0%
Monthly Average	3,804.5	2,293.6	-1,510.9					
Monthly FTE	23.8	14.3	-9.4		7.8	7.1	-0.7	

S. 200th Link Extension Staffing, continued

Consultant Resource Commitments to S. 200th Link Extension

Design/build project management consultants (6.4 FTE) made up nearly 90% of the consultant staffing for this reporting period. There was no Systems consultant staffing during this reporting period. Earlier baselines planned for utilization of Systems as well as CM resources, therefore planned cumulative consultant staffing is reflected in the consultant staffing summary below. The updated baseline included in the 2012 Staffing Plan did not include staffing with Systems consultants until later in 2012.



	PE/EIS	Civil/ Architect	Systems	CM	Total
Planned Period		400.0		848.0	1,248.0
Actual Period		109.0		1,027.0	1,136.0
Total Planned Cumulative	-	68,160.0	16,160.0	3,664.0	87,984.0
Total Actual Cumulative	-	50,550.8	-	2,201.5	52,752.3

ACRONYMS

AA	Alternative Analysis
APE	Area of Potential Impact
BCE	Baseline Cost Estimate
BCWS	Budgeted Cost of Work
BIM	Building Information Modeling
BNSF	Burlington Northern Santa Fe Railway
CCB	Change Control Board
CDF	Controlled Density Fill
CHS	Capitol Hill Station
CM	Construction Management
CMU	Concrete Masonry Unit
CO	Change Order
CPI	Cost Performance Index
CPM	Critical Path Method
DAHP	Department of Archaeology & History Preservation
DART	Days Away, Restricted or Modified
D/B	Design Build
DECM	Design, Engineering and Construction Management
DEIS	Draft Environmental Impact Statement
DPD	Seattle Department of Planning and Development
DSC	Differing Site Conditions
DSDC	Design Support During Construction
DSTT	Downtown Seattle Transit Tunnel
EFC	Estimated Final Cost
EMI	Electro Magnetic Interference
FD	Final Design
FHWA	Federal Highway Administration
FSEIS	Final Supplemental Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
FTE	Full Time Employee
GC/CM	General Contractor /Construction Management
IWP	Industrial Waste Permit
JA	Jacobs Associate
JCM	JCM U-Link Joint Venture (Contract U230)
KC	King County
KCM	King County Metro
LNTP	Limited Notice to Proceed

ACRONYMS, continued

LRT	Light Rail Transit
LRV	Light Rail Vehicle
LTK	LTK Engineering Services
MACC	Maximum Allowable Construction Cost
MDA	Major Discharge Authorization
MLK	Martin Luther King, Jr. Way
MOA	Memorandum of Agreement
MOS	Minimum Operable Segment
MOU	Memorandum of Understanding
MPPCV	Major Public Project Construction Variance
MTP	Montlake Triangle Project
MUP	Master Use Permit
NB	Northbound
NCTP	North Corridor Transit Partners
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NTP	Northlink Transit Partners
OCS	Overhead Catenary System
OMF	Operations and Maintenance Facility
OMSF	Operations and Maintenance Satellite Facility
PB	PB Americas Inc.
PE	Preliminary Engineering
PEP	Project Execution Plan
PEPD	Planning, Environment and Project Development
PMOC	Project Management Oversight Consultant
PSST	Pine Street Stub Tunnel
QA	Quality Assurance
QC	Quality Control
QTR	Quarter
RE	Resident Engineer
RFC	Request for Change
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualifications
RIR	Recordable Injury Rates
ROD	Record of Decision
ROW	Right of Way
RVP	Rainier Vista Plan

ACRONYMS, continued

SB	Southbound
SCADA	Supervisory Central and Data Acquisition
SCC	Standard Cost Categories
SCL	Seattle City Light
SDEIS	Supplemental Draft Environmental Impact Statement
SEPA	State Environmental Policy Act
SIP	Street Improvement Permitting
SPI	Schedule Performance Index
SR	State Route
ST	Sound Transit
START	Seattle Tunnel and Rail Team
SWI	Stacy & Witbeck, Inc.
TBM	Tunnel Boring Machine
TFK	Traylor Frontier Kemper Joint Venture
TOD	Transit Oriented Development
TVM	Ticket Vending Machine
UAC	Unallocated Contingency
U-Link	University Link project
USFWS	U.S. Fish and Wildlife Service
UW	University Of Washington
UWS	University of Washington Station
VE	Value Engineering
VECP	Value Engineering Cost Proposal
WBS	Work Breakdown Structure
WSDOT	Washington Department of Transportation